



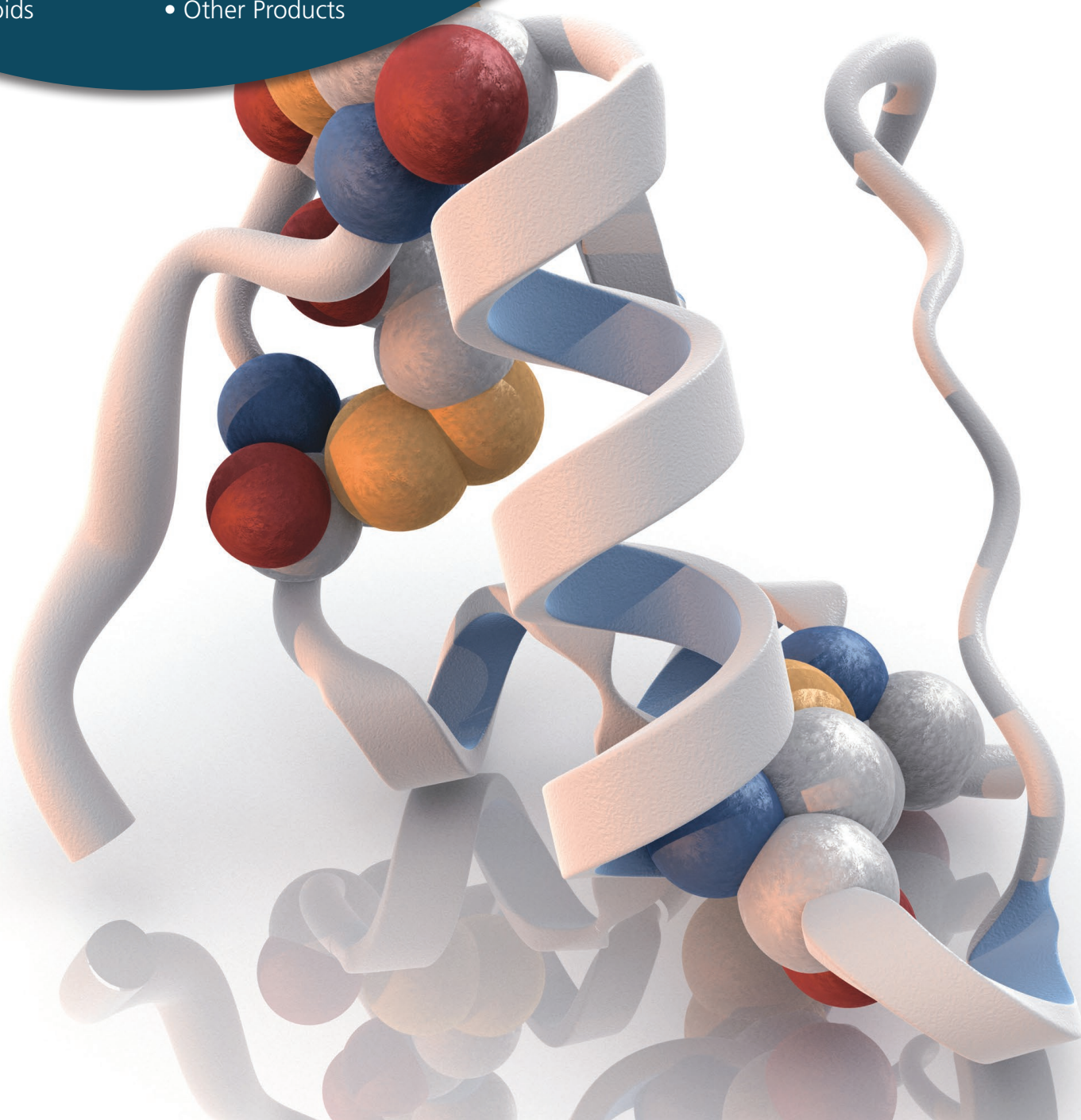
CIL

Cambridge Isotope Laboratories, Inc.  
[www.isotope.com](http://www.isotope.com)

RESEARCH PRODUCTS

# Stable Isotope Products for Metabolic Research

- Amino Acids
- Carbohydrates
- Fatty Acids
- Steroids
- Vitamins
- MRS/MRI Products
- Water
- Other Products



CIL offers the most complete listing of stable isotopically labeled metabolic substrates available. These substrates are labeled with carbon-13, deuterium, nitrogen-15, oxygen-18, as well as other stable isotopes. Some of the many applications for these compounds include the utilization of amino acids for protein turnover studies, carbohydrates for glucose metabolism studies and fatty acids for lipolysis research. Researchers utilize a number of different methods to study metabolism including mass spectrometry, MRI and MRS.

Isotope-dilution mass spectrometry (IDMS) is arguably the most accurate, sensitive, reproducible and popular method available for quantifying small and intermediate-sized molecules in a wide range of sample types. One primary reason why compounds enriched in stable isotopes make ideal internal standards for comparative or absolute quantitation using mass spectrometry is that separate signals from the "heavy" (isotope enriched) and "light" (native) forms of the same compound are detected simultaneously.

$^{13}\text{C}$  and  $^{15}\text{N}$  nuclei are NMR active and thus compounds enriched in these isotopes allow for magnetic resonance detection. The large chemical shift range and favorable relaxation properties of the  $^{13}\text{C}$  nucleus has made  $^{13}\text{C}$ -enriched substrates highly valuable probes of cellular chemistry and metabolism, particularly in the rapidly advancing field of hyperpolarization.

CIL recognizes the importance of high chemical purity and isotopic enrichment for metabolic studies. For this reason, all products are tested to meet high specifications for both. All products are shipped with a Certificate of Analysis that indicates the passing results and an MSDS to describe the physical characteristics and safety of the product. CIL may be able to provide additional data upon request. CIL can also offer products that are microbiological tested.

We have GMP capabilities as well! A majority of the compounds in this listing can be manufactured to be Q7A compliant and can be tested to USP and/or EP specifications. Please contact your local sales representative for details.

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## Amino Acids

Catalog No.	Description
CLM-1655	D-Alanine ( $1\text{-}^{13}\text{C}$ , 99%)
CLM-2495	D-Alanine ( $3\text{-}^{13}\text{C}$ , 99%)
CLM-3229	D-Alanine ( $2,3\text{-}^{13}\text{C}_2$ , 99%)
DLM-3545	D-Alanine ( $2,3,3,3\text{-D}_4$ , 98%)
DLM-7326	D-Alanine ( $\text{D}_7$ , 98%) (<5% L)
NLM-6762	D-Alanine ( $^{15}\text{N}$ , 98%)
NLM-3289	D-Alanine, N-acetyl ( $^{15}\text{N}$ , 98%)
CLM-705	DL-Alanine ( $1\text{-}^{13}\text{C}$ , 99%)
CLM-115	DL-Alanine ( $2\text{-}^{13}\text{C}$ , 99%)
CLM-707	DL-Alanine ( $3\text{-}^{13}\text{C}$ , 99%)
CLM-6056	DL-Alanine ( $2,3\text{-}^{13}\text{C}_2$ , 99%)
CLM-4514	DL-Alanine ( $\text{U-}^{13}\text{C}_3$ , 98%)
DLM-2760	DL-Alanine (2-D, 98%)
DLM-176	DL-Alanine ( $3,3,3\text{-D}_3$ , 98%)

Catalog No.	Description
DLM-1276	DL-Alanine ( $2,3,3,3\text{-D}_4$ , 97-98%)
NLM-706	DL-Alanine ( $^{15}\text{N}$ , 98%)
CDLM-8650	DL-Alanine ( $3\text{-}^{13}\text{C}$ , 99%; 2-D, 96%)
CNLM-7839	DL-Alanine ( $1\text{-}^{13}\text{C}$ , 99%; $^{15}\text{N}$ , 98%)
CNLM-3552	DL-Alanine ( $1,3\text{-}^{13}\text{C}_2$ , 99%; $^{15}\text{N}$ , 99%)
CLM-6599	DL-Alanine, N-acetyl ( $1\text{-}^{13}\text{C}$ , 99%)
CLM-116	L-Alanine ( $1\text{-}^{13}\text{C}$ , 99%)
CLM-2016	L-Alanine ( $2\text{-}^{13}\text{C}$ , 99%)
CLM-117	L-Alanine ( $3\text{-}^{13}\text{C}$ , 99%)
CLM-2734	L-Alanine ( $2,3\text{-}^{13}\text{C}_2$ , 99%)
CLM-2184	L-Alanine ( $\text{U-}^{13}\text{C}_3$ , 97-99%)
DLM-3101	L-Alanine (2-D, 98%)
DLM-248	L-Alanine ( $3,3,3\text{-D}_3$ , 99%)
DLM-250	L-Alanine ( $2,3,3,3\text{-D}_4$ , 98%)

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Catalog No.	Description
DLM-251	L-Alanine (D <sub>7</sub> , 98%)
NLM-454	L-Alanine ( <sup>15</sup> N, 98%)
OLM-7460	L-Alanine ( <sup>18</sup> O <sub>2</sub> , 90%+)
CDLM-8649	L-Alanine (3- <sup>13</sup> C, 99%; 2-D, 96%)
CDLM-3439	L-Alanine (3- <sup>13</sup> C, 99%; 3,3,3-D <sub>3</sub> , 98%)
CNLM-6993	L-Alanine (1- <sup>13</sup> C, 99%; <sup>15</sup> N, 98%)
CNLM-3594	L-Alanine (2- <sup>13</sup> C, 99%; <sup>15</sup> N, 98%)
CNLM-534	L-Alanine (U- <sup>13</sup> C <sub>3</sub> , 97-99%; <sup>15</sup> N, 97-99%)
DNLM-7178	L-Alanine (2,3,3,3-D <sub>4</sub> , 98%; <sup>15</sup> N, 98%)
CDNLM-6800	L-Alanine (U- <sup>13</sup> C <sub>3</sub> , 97-99%; U-D <sub>4</sub> , 97-99%; <sup>15</sup> N, 97-99%)
NLM-1656	β-Alanine ( <sup>15</sup> N, 98%+)
CNLM-8457	β-Alanine (1,2- <sup>13</sup> C <sub>2</sub> , 99%; <sup>15</sup> N, 98%)
CLM-8742	L-allo-Isoleucine (U- <sup>13</sup> C <sub>6</sub> , 97-99%)
DLM-857	L-allo-Isoleucine (3-methyl-D <sub>3</sub> , 98%)
DLM-1505	L-allo-Isoleucine (D <sub>10</sub> , 98%)
CNLM-8670	L-allo-Isoleucine (U- <sup>13</sup> C <sub>6</sub> , 97-99%; <sup>15</sup> N, 97-99%)
CDNLM-8911	L-allo-Isoleucine (U- <sup>13</sup> C <sub>6</sub> , 97-99%; U-D <sub>10</sub> , 97-99%; <sup>15</sup> N, 97-99%)
CLM-1268	L-Arginine•HCl (1- <sup>13</sup> C, 99%)
CLM-2070	L-Arginine•HCl (guanido- <sup>13</sup> C, 99%)
CLM-2051	L-Arginine•HCl (1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-2265-H	L-Arginine•HCl (U- <sup>13</sup> C <sub>6</sub> , 99%)
DLM-6038	L-Arginine•HCl (4,4,5,5-D <sub>4</sub> , 94%) (<5% D)
DLM-541	L-Arginine•HCl (D <sub>7</sub> , 98%)
NLM-1267	L-Arginine•HCl (α- <sup>15</sup> N, 98%+)
NLM-395	L-Arginine•HCl (guanido- <sup>15</sup> N <sub>2</sub> , 98%+)
NLM-396	L-Arginine•HCl (U- <sup>15</sup> N <sub>4</sub> , 98%)
CDLM-3789	L-Arginine•HCl (5- <sup>13</sup> C, 99%; 4,4,5,5-D <sub>4</sub> , 95%)
CNLM-539-H	L-Arginine•HCl (U- <sup>13</sup> C <sub>6</sub> , 99%; U- <sup>15</sup> N <sub>4</sub> , 99%)
DNLM-7543	L-Arginine•HCl (D <sub>7</sub> , 98%; <sup>15</sup> N <sub>4</sub> , 98%)
CDNLM-6801	L-Arginine•HCl (U- <sup>13</sup> C <sub>6</sub> , 97-99%; U-D <sub>7</sub> , 97-99%; U- <sup>15</sup> N <sub>4</sub> , 97-99%)
ULM-8347	L-Arginine•HCl (unlabeled)
CLM-8699	L-Asparagine•H <sub>2</sub> O (U- <sup>13</sup> C <sub>4</sub> , 97-99%)
DLM-6844	L-Asparagine•H <sub>2</sub> O (2,3,3-D <sub>3</sub> , 94%)
NLM-2293	L-Asparagine (α- <sup>15</sup> N, 99%)
NLM-120	L-Asparagine•H <sub>2</sub> O (amide- <sup>15</sup> N, 98%+)
NLM-3286	L-Asparagine•H <sub>2</sub> O ( <sup>15</sup> N <sub>2</sub> , 98%)
CNLM-3819	L-Asparagine•H <sub>2</sub> O (U- <sup>13</sup> C <sub>4</sub> , 97-99%; U- <sup>15</sup> N <sub>2</sub> , 97-99%)
DNLM-6932	L-Asparagine•H <sub>2</sub> O (2,3,3-D <sub>3</sub> , 98%; <sup>15</sup> N <sub>2</sub> , 98%)
CDNLM-6802	L-Asparagine•H <sub>2</sub> O (U- <sup>13</sup> C <sub>4</sub> , 97-99%; U-D <sub>3</sub> , 97-99%; U- <sup>15</sup> N <sub>2</sub> , 97-99%)
CLM-864	DL-Aspartic acid (2- <sup>13</sup> C, 99%)
CLM-518	DL-Aspartic acid (4- <sup>13</sup> C, 99%)
DLM-832	DL-Aspartic acid (2,3,3-D <sub>3</sub> , 98%)
DLM-8599	DL-Aspartic acid, N-acetyl (aspartate-2,3,3-D <sub>3</sub> , 97%)
CLM-3616	L-Aspartic acid (1- <sup>13</sup> C, 99%)
CLM-3617	L-Aspartic acid (2- <sup>13</sup> C, 99%)
CLM-627	L-Aspartic acid (3- <sup>13</sup> C, 99%)
CLM-519	L-Aspartic acid (4- <sup>13</sup> C, 99%) CP 96%
CLM-4455	L-Aspartic acid (1,4- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-1801	L-Aspartic acid (U- <sup>13</sup> C <sub>4</sub> , 97-99%)
DLM-546	L-Aspartic acid (2,3,3-D <sub>3</sub> , 97-98%)
NLM-718	L-Aspartic acid ( <sup>15</sup> N, 98%)
CNLM-544	L-Aspartic acid (U- <sup>13</sup> C <sub>4</sub> , 97-99%; <sup>15</sup> N, 97-99%)
DNLM-6931	L-Aspartic acid (2,3,3-D <sub>3</sub> , 98%; <sup>15</sup> N, 98%)
CDNLM-6803	L-Aspartic acid (U- <sup>13</sup> C <sub>4</sub> , 97-99%; U-D <sub>3</sub> , 97-99%; <sup>15</sup> N, 97-99%)
ULM-8676	L-Aspartic acid (unlabeled)
CLM-4899	L-Citrulline (ureido- <sup>13</sup> C, 99%)
DLM-3860	L-Citrulline (5,5-D <sub>2</sub> , 98%)
DLM-6039	L-Citrulline (4,4,5,5-D <sub>4</sub> , 95%)

Catalog No.	Description
NLM-6850	L-Citrulline (ureido- <sup>15</sup> N <sub>1</sub> , 98%)
CDLM-7879	L-Citrulline (ureido- <sup>13</sup> C, 99%; 5,5-D <sub>2</sub> , 98%)
CDLM-8808	L-Citrulline (ureido- <sup>13</sup> C, 99%; 3,3,4-D <sub>3</sub> , 98%)
CDLM-7139	L-Citrulline (5- <sup>13</sup> C, 99%; 4,4,5,5-D <sub>4</sub> , 95%)
ULM-8642	L-Citrulline (unlabeled)
CLM-3790	DL-Cysteine (1- <sup>13</sup> C, 99%)
CLM-898	DL-Cysteine (3- <sup>13</sup> C, 99%)
DLM-1180	DL-Cysteine (2-D, 98%)
DLM-899	DL-Cysteine (3,3-D <sub>2</sub> , 98%)
CLM-3852	L-Cysteine (1- <sup>13</sup> C, 99%)
CLM-1868	L-Cysteine (3- <sup>13</sup> C, 99%)
CLM-4320	L-Cysteine (U- <sup>13</sup> C <sub>3</sub> , 97-99%)
DLM-769	L-Cysteine (3,3-D <sub>2</sub> , 98%)
DLM-6901	L-Cysteine (2,3,3-D <sub>3</sub> , 98%)
NLM-2295	L-Cysteine ( <sup>15</sup> N, 98%)
CNLM-3871	L-Cysteine (U- <sup>13</sup> C <sub>3</sub> , 97-99%; <sup>15</sup> N, 97-99%)
DNLM-6902	L-Cysteine (2,3,3-D <sub>3</sub> , 98%; <sup>15</sup> N, 98%)
CDNLM-6809	L-Cysteine (U- <sup>13</sup> C <sub>3</sub> , 97-99%; U-D <sub>3</sub> , 97-99%; <sup>15</sup> N, 97-99%)
DLM-2942	L-Cysteine, S-methyl (S-methyl-D <sub>3</sub> , 98%)
CLM-815	DL-Cystine (3,3'- <sup>13</sup> C <sub>2</sub> , 98%)
DLM-1000	DL-Cystine (3,3,3',3'-D <sub>4</sub> , 98%)
NLM-1668	DL-Cystine ( <sup>15</sup> N <sub>2</sub> , 95%)
CLM-520	L-Cystine (3,3'- <sup>13</sup> C <sub>2</sub> , 99%)
NLM-3818	L-Cystine ( <sup>15</sup> N <sub>2</sub> , 98%)
CNLM-4244	L-Cystine ( <sup>13</sup> C <sub>6</sub> , 98%; <sup>15</sup> N <sub>2</sub> , 98%)
CDNLM-8659	L-Cystine ( <sup>13</sup> C <sub>6</sub> , 98%; D <sub>6</sub> , 98%; <sup>15</sup> N <sub>2</sub> , 98%) CP 95%
CLM-3721	DL-Glutamic acid•H <sub>2</sub> O (1- <sup>13</sup> C, 99%)
CLM-3632	DL-Glutamic acid (3- <sup>13</sup> C, 99%)
CLM-3028	DL-Glutamic acid (5- <sup>13</sup> C, 99%)
DLM-335	DL-Glutamic acid (2,4,4-D <sub>3</sub> , 97-98%)
DLM-357	DL-Glutamic acid (2,3,3,4,4-D <sub>5</sub> , 97%)
NLM-3279	DL-Glutamic acid ( <sup>15</sup> N, 98%)
CNLM-4292	DL-Glutamic acid•H <sub>2</sub> O (1- <sup>13</sup> C, 99%; <sup>15</sup> N, 98%)
ULM-8940	DL-Glutamic acid•H <sub>2</sub> O (unlabeled)
CLM-674	L-Glutamic acid (1- <sup>13</sup> C, 99%)
CLM-2474	L-Glutamic acid (2- <sup>13</sup> C, 99%)
CLM-4742	L-Glutamic acid (3- <sup>13</sup> C, 99%)
CLM-2431	L-Glutamic acid (4- <sup>13</sup> C, 98-99%)
CLM-613	L-Glutamic acid (5- <sup>13</sup> C, 99%)
CLM-2024	L-Glutamic acid (1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-3646	L-Glutamic acid (3,4- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-1800	L-Glutamic acid (U- <sup>13</sup> C <sub>5</sub> , 97-99%)
DLM-3725	L-Glutamic acid (2,4,4-D <sub>3</sub> , 97-98%)
DLM-556	L-Glutamic acid (2,3,3,4,4-D <sub>5</sub> , 97-98%)
NLM-135	L-Glutamic acid ( <sup>15</sup> N, 98%)
OLM-8028	L-Glutamic acid•HCl ( <sup>17</sup> O <sub>4</sub> , ~30%)
CNLM-554	L-Glutamic acid (U- <sup>13</sup> C <sub>5</sub> , 97-99%; <sup>15</sup> N, 97-99%)
DNLM-6996	L-Glutamic acid (2,3,3,4,4-D <sub>5</sub> , 98%; <sup>15</sup> N, 98%)
CDNLM-6804	L-Glutamic acid (U- <sup>13</sup> C <sub>5</sub> , 97-99%; U-D <sub>5</sub> , 97-99%; <sup>15</sup> N, 97-99%)
ULM-8675	L-Glutamic acid (unlabeled)
CLM-3612	L-Glutamine (1- <sup>13</sup> C, 99%)
CLM-3613	L-Glutamine (2- <sup>13</sup> C, 99%)
CLM-770	L-Glutamine (4- <sup>13</sup> C, 99%)
CLM-1166	L-Glutamine (5- <sup>13</sup> C, 99%)
CLM-2001	L-Glutamine (1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-3641	L-Glutamine (3,4- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-1822	L-Glutamine (U- <sup>13</sup> C <sub>5</sub> , 97-99%)

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Catalog No.	Description
DLM-1826	L-Glutamine (2,3,3,4,4-D <sub>5</sub> , 97%)
NLM-1016	L-Glutamine (α- <sup>15</sup> N, 98%)
NLM-557	L-Glutamine (amide- <sup>15</sup> N, 98%+)
NLM-1328	L-Glutamine ( <sup>15</sup> N <sub>2</sub> , 98%)
CNLM-1275	L-Glutamine (U- <sup>13</sup> C <sub>5</sub> , 97-99%; U- <sup>15</sup> N <sub>2</sub> , 97-99%)
DNLM-6997	L-Glutamine (2,3,3,4,4-D <sub>5</sub> , 98%; <sup>15</sup> N <sub>2</sub> , 98%)
CDNLM-6805	L-Glutamine (U- <sup>13</sup> C <sub>5</sub> , 97-99%; U-D <sub>5</sub> , 97-99%; U- <sup>15</sup> N <sub>2</sub> , 97-99%)
CLM-422	Glycine (1- <sup>13</sup> C, 99%)
CLM-136	Glycine (2- <sup>13</sup> C, 99%)
CLM-1017	Glycine (1,2- <sup>13</sup> C <sub>2</sub> , 97-99%)
DLM-280	Glycine (D <sub>5</sub> , 98%)
DLM-1674	Glycine (2,2-D <sub>2</sub> , 98%)
NLM-202	Glycine ( <sup>15</sup> N, 98%)
CDLM-6072	Glycine (1- <sup>13</sup> C, 99%; D <sub>5</sub> , 98%)
CNLM-507	Glycine (1- <sup>13</sup> C, 99%; <sup>15</sup> N, 98%+)
CNLM-508	Glycine (2- <sup>13</sup> C, 99%; <sup>15</sup> N, 98%+)
CNLM-1673	Glycine (U- <sup>13</sup> C <sub>2</sub> , 97-99%; <sup>15</sup> N, 97-99%)
DNLM-6862	Glycine (2,2-D <sub>2</sub> , 98%; <sup>15</sup> N, 98%)
CDNLM-6799	Glycine (U- <sup>13</sup> C <sub>2</sub> , 97-99%; 2,2-D <sub>2</sub> , 97-99%; <sup>15</sup> N, 97-99%)
DLM-2947	Glycine, N-methyl (N-methyl-D <sub>3</sub> , 98%)
CNLM-7175	Glycine•HCl, ethyl ester ( <sup>13</sup> C <sub>2</sub> , 98%; <sup>15</sup> N, 98%)
CLM-2636	DL-Histidine (ring-2- <sup>13</sup> C, 99%)
CLM-739	DL-Histidine•HCl (ring-2- <sup>13</sup> C, 99%)
NLM-138	DL-Histidine•2HCl (α- <sup>15</sup> N, 98%+)
NLM-6703	DL-Histidine•HCl:H <sub>2</sub> O (ring- <sup>15</sup> N <sub>2</sub> , 98%)
NLM-6702	DL-Histidine•HCl:H <sub>2</sub> O ( <sup>15</sup> N <sub>3</sub> , 98%)
CLM-4793	L-Histidine (carbonyl- <sup>13</sup> C, 99%)
CLM-1512	L-Histidine•HCl•H <sub>2</sub> O (ring-2- <sup>13</sup> C, 99%) (<5% D)
CLM-2264	L-Histidine•HCl•H <sub>2</sub> O (U- <sup>13</sup> C <sub>6</sub> , 97-99%) (<5% D)
NLM-2245	L-Histidine•HCl•H <sub>2</sub> O (ring- <sup>15</sup> N, 98%+)
NLM-4457	L-Histidine (ring-π- <sup>15</sup> N, 98%+) (<5% D)
NLM-846	L-Histidine•HCl•H <sub>2</sub> O (ring-π- <sup>15</sup> N, 98%+) (<5% D)
NLM-4649	L-Histidine (ring-ε- <sup>15</sup> N, 98%+) (<5% D)
NLM-4765	L-Histidine•HCl•H <sub>2</sub> O (α- <sup>15</sup> N <sub>2</sub> , 98%)
NLM-1513	L-Histidine•HCl•H <sub>2</sub> O ( <sup>15</sup> N <sub>3</sub> , 98%) (<5% D)
CNLM-758	L-Histidine•HCl•H <sub>2</sub> O (U- <sup>13</sup> C <sub>6</sub> , 97-99%; U- <sup>15</sup> N <sub>3</sub> , 97-99%) (<5% D)
DNLM-7366	L-Histidine•HCl•H <sub>2</sub> O (U-D <sub>5</sub> , 98%; U- <sup>15</sup> N <sub>3</sub> , 98%)
CDNLM-6806	L-Histidine•HCl•H <sub>2</sub> O (U- <sup>13</sup> C <sub>6</sub> , 97-99%; U-D <sub>5</sub> , 97-99%; U- <sup>15</sup> N <sub>3</sub> , 97-99%)
ULM-8798	L-Histidine (unlabeled)
CNLM-4645	L-Homoarginine•HCl (U- <sup>13</sup> C <sub>7</sub> , 98%+; <sup>15</sup> N <sub>4</sub> , 98%+)
NLM-2466	L-Homoserine ( <sup>15</sup> N, 95-99%)
CLM-1026	L-Isoleucine (1- <sup>13</sup> C, 99%)
CLM-2248	L-Isoleucine (U- <sup>13</sup> C <sub>6</sub> , 97-99%)
DLM-1205	L-Isoleucine (3-methyl-D <sub>3</sub> , 98%)
DLM-141	L-Isoleucine (D <sub>10</sub> , 98%)
NLM-292	L-Isoleucine ( <sup>15</sup> N, 98%)
CNLM-561-H	L-Isoleucine (U- <sup>13</sup> C <sub>6</sub> , 99%; <sup>15</sup> N, 99%)
DNLM-7325	L-Isoleucine (D <sub>10</sub> , 98%; <sup>15</sup> N, 98%)
CDNLM-4282	L-Isoleucine (U- <sup>13</sup> C <sub>6</sub> , 95-97%; 2,3-D <sub>2</sub> , 97%+; <sup>15</sup> N, 96-99%)
CDNLM-6807	L-Isoleucine (U- <sup>13</sup> C <sub>6</sub> , 97-99%; U-D <sub>10</sub> , 97-99%; <sup>15</sup> N, 97-99%)
ULM-8797	L-Isoleucine (unlabeled)
NLM-3585	D-Leucine ( <sup>15</sup> N, 98%)
CLM-204	DL-Leucine (1- <sup>13</sup> C, 99%)
CLM-207	DL-Leucine (2- <sup>13</sup> C, 99%)
NLM-355	DL-Leucine ( <sup>15</sup> N, 98%)
CNLM-807	DL-Leucine (1- <sup>13</sup> C, 99%; <sup>15</sup> N, 98%)
CNLM-8679	DL-Leucine (2- <sup>13</sup> C, 99%; <sup>15</sup> N, 98%)

Catalog No.	Description
CLM-468	L-Leucine (1- <sup>13</sup> C, 99%)
CLM-2014	L-Leucine (2- <sup>13</sup> C, 99%)
CLM-3524	L-Leucine (1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-3383	L-Leucine (3,4- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-2262-H	L-Leucine (U- <sup>13</sup> C <sub>6</sub> , 99%)
DLM-1259	L-Leucine (5,5,5-D <sub>3</sub> , 99%)
DLM-4212	L-Leucine (isopropyl-D <sub>7</sub> , 98%)
DLM-567	L-Leucine (D <sub>10</sub> , 98%)
NLM-142	L-Leucine ( <sup>15</sup> N, 98%)
OLM-2041	L-Leucine ( <sup>18</sup> O <sub>2</sub> , 95%)
CNLM-615	L-Leucine (1- <sup>13</sup> C, 99%; <sup>15</sup> N, 98%+)
CNLM-3450	L-Leucine (2- <sup>13</sup> C, 99%; <sup>15</sup> N, 95-99%)
CNLM-3451	L-Leucine (4- <sup>13</sup> C, 99%; <sup>15</sup> N, 99%)
CNLM-281	L-Leucine (U- <sup>13</sup> C <sub>6</sub> , 97-99%; <sup>15</sup> N, 97-99%)
COLM-7399	L-Leucine (1- <sup>13</sup> C, 99%; <sup>17</sup> O <sub>2</sub> , 60%+)
DNLM-1895	L-Leucine (5,5,5-D <sub>3</sub> , 98%; <sup>15</sup> N, 99%)
DNLM-4642	L-Leucine (D <sub>10</sub> , 98%; <sup>15</sup> N, 97%)
CDNLM-6808	L-Leucine (U- <sup>13</sup> C <sub>6</sub> , 97-99%; U-D <sub>10</sub> , 97-99%; <sup>15</sup> N, 97-99%)
DLM-476	L-Leucine, N-acetyl (D <sub>10</sub> , 98%)
ULM-4889	D-Lysine•HCl (unlabeled)
CLM-749	DL-Lysine•2HCl (1- <sup>13</sup> C, 99%)
CLM-7639	DL-Lysine•2HCl ( <sup>13</sup> C <sub>6</sub> , 97-99%)
DLM-8941	DL-Lysine•2HCl (4,4,5,5-D <sub>4</sub> , 96-98%)
DLM-3542	DL-Lysine•HCl•H <sub>2</sub> O (3,3,4,4,5,5,6,6-D <sub>8</sub> , 98%)
DLM-8089	DL-Lysine•2HCl (D <sub>9</sub> , 98%)
NLM-1683	DL-Lysine•HCl•H <sub>2</sub> O (α- <sup>15</sup> N, 99%)
NLM-1031	DL-Lysine•2HCl (ε- <sup>15</sup> N, 98%)
NLM-8762	DL-Lysine•2HCl ( <sup>15</sup> N <sub>2</sub> , 98%)
CNLM-3452	DL-Lysine•2HCl (1- <sup>13</sup> C, 99%; ε- <sup>15</sup> N, 99%)
CNLM-3453	DL-Lysine•2HCl (2- <sup>13</sup> C, 99%; ε- <sup>15</sup> N, 99%)
CNLM-7771-H	DL-Lysine•2HCl ( <sup>13</sup> C <sub>6</sub> , 99%; <sup>15</sup> N <sub>2</sub> , 99%)
DNLM-7400	DL-Lysine•2HCl (D <sub>9</sub> , 98%; <sup>15</sup> N <sub>2</sub> , 98%)
CLM-653	L-Lysine•2HCl (1- <sup>13</sup> C, 99%)
CLM-633	L-Lysine•HCl (5- <sup>13</sup> C, 99%)
CLM-632	L-Lysine•2HCl (6- <sup>13</sup> C, 99%)
CLM-2247	L-Lysine•2HCl (U- <sup>13</sup> C <sub>6</sub> , 99%)
DLM-2640	L-Lysine•2HCl (4,4,5,5-D <sub>4</sub> , 96-98%)
DLM-2641	L-Lysine•HCl (3,3,4,4,5,5,6,6-D <sub>8</sub> , 96%)
DLM-570	L-Lysine•2HCl (D <sub>9</sub> , 98%)
NLM-3529	L-Lysine•HCl•H <sub>2</sub> O ( <sup>14</sup> N <sub>2</sub> , 99.99%)
NLM-143	L-Lysine•2HCl (α- <sup>15</sup> N, 95-99%)
NLM-631	L-Lysine•2HCl (ε- <sup>15</sup> N, 98%+)
NLM-1554	L-Lysine•2HCl ( <sup>15</sup> N <sub>2</sub> , 98%+)
CNLM-291	L-Lysine•2HCl (U- <sup>13</sup> C <sub>6</sub> , 99%; U- <sup>15</sup> N <sub>2</sub> , 99%)
DNLM-7545	L-Lysine•2HCl (D <sub>9</sub> , 98%; <sup>15</sup> N <sub>2</sub> , 98%)
CDNLM-6810	L-Lysine•2HCl (U- <sup>13</sup> C <sub>6</sub> , 97-99%; U-D <sub>9</sub> , 97-99%; U- <sup>15</sup> N <sub>2</sub> , 97-99%)
ULM-8766	L-Lysine•2HCl (unlabeled)
CLM-7356	D-Methionine (1- <sup>13</sup> C, 99%)
CLM-6191	DL-Methionine (1- <sup>13</sup> C, 99%)
CLM-3387	DL-Methionine (methyl- <sup>13</sup> C, 99%)
CLM-6570	DL-Methionine (1,2,3,4- <sup>13</sup> C <sub>4</sub> , 99%)
CLM-6571	DL-Methionine ( <sup>13</sup> C <sub>5</sub> , 99%)
DLM-2933	DL-Methionine (3,3,4,4-D <sub>4</sub> , 98%)
DLM-6795	DL-Methionine (2,3,3,4,4-D <sub>5</sub> , 98%)
DLM-9019	DL-Methionine (3,3,4,4-D <sub>4</sub> ; methyl-D <sub>3</sub> , 98%)
DLM-6796	DL-Methionine (2,3,3,4,4-D <sub>5</sub> ; methyl-D <sub>3</sub> , 98%)
NLM-1684	DL-Methionine ( <sup>15</sup> N, 98%)
CNLM-6752	DL-Methionine (1,2,3,4- <sup>13</sup> C <sub>4</sub> , 99%; <sup>15</sup> N, 98%)
CNLM-6753	DL-Methionine ( <sup>13</sup> C <sub>5</sub> , 98%; <sup>15</sup> N, 98%)

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Catalog No.	Description
CDNLM-8026	DL-Methionine ( $^{13}\text{C}_5$ , 97-99%; $\text{D}_8$ , 97-99%; $^{15}\text{N}$ , 97-99%)
CLM-3267	L-Methionine ( $1\text{-}^{13}\text{C}$ , 99%)
CLM-206	L-Methionine (methyl- $^{13}\text{C}$ , 99%)
CLM-893	L-Methionine ( $\text{U-}^{13}\text{C}_5$ , 97-99%)
DLM-431	L-Methionine (methyl- $\text{D}_3$ , 98%)
DLM-6797	L-Methionine (2,3,3,4,4- $\text{D}_5$ ; methyl- $\text{D}_3$ , 98%)
NLM-752	L-Methionine ( $^{15}\text{N}$ , 96-98%)
CDLM-760	L-Methionine ( $1\text{-}^{13}\text{C}$ , 99%; methyl- $\text{D}_3$ , 98%)
CDLM-8885	L-Methionine (2,3,3,4,4- $\text{D}_5$ , 98%; methyl- $^{13}\text{C}_3$ , 99%)
CNLM-759	L-Methionine ( $\text{U-}^{13}\text{C}_5$ , 97-99%; $^{15}\text{N}$ , 97-99%)
DNLM-7179	L-Methionine ( $\text{D}_8$ , 98%; $^{15}\text{N}$ , 98%)
CDNLM-6798	L-Methionine ( $\text{U-}^{13}\text{C}_5$ , 97-99%; $\text{U-D}_8$ , 97-99%; $^{15}\text{N}$ , 97-99%)
CLM-8002	L-Methionine sulfone ( $1\text{-}^{13}\text{C}$ , 99%)
CLM-1289	DL-Ornithine•2HCl ( $1\text{-}^{13}\text{C}$ , 99%)
CLM-2176	DL-Ornithine•HCl ( $1,2\text{-}^{13}\text{C}_2$ , 99%)
CLM-4219	DL-Ornithine•HCl ( $\text{U-}^{13}\text{C}_5$ , 97-98%)
DLM-200	DL-Ornithine•HCl (3,3,4,4,5,5- $\text{D}_6$ , 98%)
DLM-6668	DL-Ornithine•HCl ( $\text{D}_7$ , 98%)
NLM-1047	DL-Ornithine•HCl ( $\alpha\text{-}^{15}\text{N}$ , 98%)
NLM-8064	DL-Ornithine•HCl ( $^{15}\text{N}_2$ , 98%)
CNLM-7577	DL-Ornithine•HCl ( $\text{U-}^{13}\text{C}_5$ , 98%; $^{15}\text{N}_2$ , 98%)
DNLM-8618	DL-Ornithine•HCl ( $\text{D}_7$ , 98%; 5- $^{15}\text{N}$ , 98%)
CLM-3588	L-Ornithine•HCl ( $1\text{-}^{13}\text{C}$ , 99%)
CLM-1036	L-Ornithine•HCl ( $1,2\text{-}^{13}\text{C}_2$ , 99%)
CLM-4724	L-Ornithine•HCl ( $\text{U-}^{13}\text{C}_5$ , 98%)
DLM-4261	L-Ornithine•HCl (5,5- $\text{D}_2$ , 98%)
DLM-6046	L-Ornithine•HCl (4,4,5,5- $\text{D}_4$ , 95%)
DLM-2969	L-Ornithine•HCl (3,3,4,4,5,5- $\text{D}_6$ , 98%)
DLM-6669	L-Ornithine•HCl ( $\text{D}_7$ , 98%)
NLM-2212	L-Ornithine•HCl ( $\alpha\text{-}^{15}\text{N}$ , 98%)
NLM-2174	L-Ornithine•HCl (5- $^{15}\text{N}$ , 98%)
NLM-3610	L-Ornithine•HCl ( $^{15}\text{N}_2$ , 98%)
CDLM-3873	L-Ornithine•HCl (5- $^{13}\text{C}$ , 99%; 4,4,5,5- $\text{D}_4$ , 95%)
CNLM-7578	L-Ornithine•HCl ( $\text{U-}^{13}\text{C}_5$ , 98%; $^{15}\text{N}_2$ , 98%)
DNLM-7369	L-Ornithine•HCl ( $\text{D}_7$ , 98%; $^{15}\text{N}_2$ , 98%)
ULM-8641	L-Ornithine•HCl (unlabeled)
CLM-3208	D-Phenylalanine ( $1\text{-}^{13}\text{C}$ , 99%)
DLM-4526	D-Phenylalanine (ring- $\text{D}_5$ , 97%)
CLM-761	DL-Phenylalanine ( $1\text{-}^{13}\text{C}$ , 99%)
CLM-3268	DL-Phenylalanine (3- $^{13}\text{C}$ , 99%)
CLM-7486	DL-Phenylalanine (ring- $^{13}\text{C}_6$ , 99%)
DLM-2983	DL-Phenylalanine (2- $\text{D}$ , 98%)
DLM-2986	DL-Phenylalanine (ring- $\text{D}_5$ , 98%)
DLM-2987	DL-Phenylalanine ( $\text{D}_8$ , 98%)
NLM-3434	DL-Phenylalanine ( $^{15}\text{N}$ , 98%)
CLM-762	L-Phenylalanine ( $1\text{-}^{13}\text{C}$ , 99%)
CLM-1631	L-Phenylalanine (2- $^{13}\text{C}$ , 99%) CP 97%
CLM-1053	L-Phenylalanine (3- $^{13}\text{C}$ , 99%)
CLM-1055	L-Phenylalanine (ring- $^{13}\text{C}_6$ , 99%)
CLM-2250	L-Phenylalanine ( $\text{U-}^{13}\text{C}_9$ , 97-99%)
DLM-2984	L-Phenylalanine (2- $\text{D}$ , 95%)
DLM-2985	L-Phenylalanine (3,3- $\text{D}_2$ , 98%)
DLM-1258	L-Phenylalanine (ring- $\text{D}_5$ , 98%)
DLM-2652	L-Phenylalanine (ring- $\text{D}_5$ , 3,3- $\text{D}_2$ , 98%)
DLM-372	L-Phenylalanine ( $\text{D}_8$ , 98%)
NLM-108	L-Phenylalanine ( $^{15}\text{N}$ , 98%)
CNLM-7611	L-Phenylalanine (2,3- $^{13}\text{C}_2$ , 99%; $^{15}\text{N}$ , 98%)
CNLM-575	L-Phenylalanine ( $\text{U-}^{13}\text{C}_9$ , 97-99%; $^{15}\text{N}$ , 97-99%)

Catalog No.	Description
DNLM-7180	L-Phenylalanine ( $\text{D}_8$ , 98%; $^{15}\text{N}$ , 98%)
CDNLM-6811	L-Phenylalanine ( $\text{U-}^{13}\text{C}_9$ , 97-99%; $\text{U-D}_8$ , 97-99%; $^{15}\text{N}$ , 97-99%)
CLM-2479	DL-Proline ( $1\text{-}^{13}\text{C}$ , 99%)
DLM-2657	DL-Proline (2,3,3,4,4,5,5- $\text{D}_7$ , 97-98%)
NLM-1689	DL-Proline ( $^{15}\text{N}$ , 98%)
CLM-510	L-Proline ( $1\text{-}^{13}\text{C}$ , 99%)
CLM-2260	L-Proline ( $\text{U-}^{13}\text{C}_5$ , 97-99%)
DLM-487	L-Proline ( $\text{D}_7$ , 97-98%)
NLM-835	L-Proline ( $^{15}\text{N}$ , 98%)
CNLM-436	L-Proline ( $\text{U-}^{13}\text{C}_5$ , 97-99%; $^{15}\text{N}$ , 97-99%)
DNLM-7562	L-Proline ( $\text{D}_7$ , 98%; $^{15}\text{N}$ , 98%)
CDNLM-6812	L-Proline ( $\text{U-}^{13}\text{C}_5$ , 97-99%; $\text{U-D}_7$ , 97-99%; $^{15}\text{N}$ , 97-99%)
ULM-8333	L-Proline (unlabeled)
CLM-1075	DL-Serine ( $1\text{-}^{13}\text{C}$ , 99%)
CLM-496	DL-Serine (2- $^{13}\text{C}$ , 99%)
CLM-497	DL-Serine (3- $^{13}\text{C}$ , 99%)
DLM-1074	DL-Serine (3,3- $\text{D}_2$ , 98%)
DLM-1073	DL-Serine (2,3,3- $\text{D}_3$ , 98%)
NLM-1531	DL-Serine ( $^{15}\text{N}$ , 98%)
CNLM-4207	DL-Serine ( $\text{U-}^{13}\text{C}_3$ , 98%; $^{15}\text{N}$ , 98%)
ULM-8939	DL-Serine (unlabeled)
CLM-1573	L-Serine ( $1\text{-}^{13}\text{C}$ , 99%)
CLM-2013	L-Serine (2- $^{13}\text{C}$ , 99%)
CLM-1572	L-Serine (3- $^{13}\text{C}$ , 99%)
CLM-1574	L-Serine ( $\text{U-}^{13}\text{C}_3$ , 97-99%)
DLM-161	L-Serine (3,3- $\text{D}_2$ , 98%)
DLM-582	L-Serine (2,3,3- $\text{D}_3$ , 98%)
NLM-2036	L-Serine ( $^{15}\text{N}$ , 98%)
CNLM-3467	L-Serine (2- $^{13}\text{C}$ , 99%; $^{15}\text{N}$ , 99%)
CNLM-474	L-Serine ( $\text{U-}^{13}\text{C}_3$ , 97-99%; $^{15}\text{N}$ , 97-99%)
DNLM-6863	L-Serine (2,3,3- $\text{D}_3$ , 98%; $^{15}\text{N}$ , 98%)
CDNLM-6813	L-Serine ( $\text{U-}^{13}\text{C}_3$ , 97-99%; $\text{U-D}_3$ , 97-99%; $^{15}\text{N}$ , 97-99%)
ULM-8799	L-Serine (unlabeled)
CLM-3949	Sodium glutamate: $1/2\text{H}_2\text{O}$ ( $\text{U-}^{13}\text{C}_5$ , 97-98%)
DLM-8738	S-Sulfo-DL-cysteine (2,3,3- $\text{D}_3$ , 99%)
CLM-447	L-Threonine ( $1\text{-}^{13}\text{C}$ , 99%)
CLM-2261	L-Threonine ( $\text{U-}^{13}\text{C}_4$ , 97-99%)
DLM-1693	L-Threonine ( $\text{D}_5$ , 98%)
NLM-742	L-Threonine ( $^{15}\text{N}$ , 98%)
CNLM-587	L-Threonine ( $\text{U-}^{13}\text{C}_4$ , 97-99%; $^{15}\text{N}$ , 97-99%)
DNLM-7367	L-Threonine ( $\text{D}_5$ , 97%; $^{15}\text{N}$ , 98%)
CDNLM-6814	L-Threonine ( $\text{U-}^{13}\text{C}_4$ , 97-99%; $\text{U-D}_5$ , 97-99%; $^{15}\text{N}$ , 97-99%)
ULM-8800	L-Threonine (unlabeled)
CLM-778	L-Tryptophan ( $1\text{-}^{13}\text{C}$ , 99%)
CLM-1543	L-Tryptophan (indole-2- $^{13}\text{C}$ , 98%)
CLM-716	L-Tryptophan (indole-3- $^{13}\text{C}$ , 95-99%)
CLM-717	L-Tryptophan (indole-4- $^{13}\text{C}$ , 99%) CP 95%+
CLM-1301	L-Tryptophan (ring- $^{13}\text{C}_6$ , 99%)
CLM-4290	L-Tryptophan ( $\text{U-}^{13}\text{C}_{11}$ , 97-99%)
DLM-1092	L-Tryptophan (indole- $\text{D}_5$ , 98%)
DLM-6903	L-Tryptophan ( $\text{D}_8$ , 98%)
NLM-1695	L-Tryptophan ( $\alpha\text{-}^{15}\text{N}$ , 95-99%)
NLM-1208	L-Tryptophan (indole- $^{15}\text{N}$ , 98%+)
NLM-800	L-Tryptophan ( $\text{U-}^{15}\text{N}_2$ , 98%)
CNLM-2475	L-Tryptophan ( $\text{U-}^{13}\text{C}_{11}$ , 97-99%; $\text{U-}^{15}\text{N}_2$ , 97-99%)
DNLM-6904	L-Tryptophan ( $\text{D}_8$ , 98%; $^{15}\text{N}_2$ , 98%)
CDNLM-6816	L-Tryptophan ( $\text{U-}^{13}\text{C}_{11}$ , 97-99%; $\text{U-D}_8$ , 97-99%; $\text{U-}^{15}\text{N}_2$ , 97-99%)

Catalog No.	Description
CLM-448	DL-Tyrosine (1- <sup>13</sup> C, 99%)
DLM-137	DL-Tyrosine (3,3-D <sub>2</sub> , 98%)
DLM-2915	DL-Tyrosine (2,3,3-D <sub>3</sub> , 98%)
DLM-2916	DL-Tyrosine (ring-2,6-D <sub>2</sub> , 2-D, 98%)
DLM-2914	DL-Tyrosine (ring-3,5-D <sub>2</sub> , 98%)
CLM-776	L-Tyrosine (1- <sup>13</sup> C, 99%)
CLM-437	L-Tyrosine (2- <sup>13</sup> C, 99%)
CLM-3378	L-Tyrosine (3- <sup>13</sup> C, 99%)
CLM-622	L-Tyrosine (phenol-4- <sup>13</sup> C, 95-99%)
CLM-623	L-Tyrosine (phenol-3,5- <sup>13</sup> C <sub>2</sub> , 95-99%)
CLM-1542	L-Tyrosine (ring- <sup>13</sup> C <sub>6</sub> , 99%)
CLM-7881	L-Tyrosine (1- <sup>13</sup> C, ring- <sup>13</sup> C <sub>6</sub> , 99%)
CLM-2263	L-Tyrosine (U- <sup>13</sup> C <sub>9</sub> , 99%)
DLM-2317	L-Tyrosine (3,3-D <sub>2</sub> , 98%)
DLM-2917	L-Tyrosine (ring-2,6-D <sub>2</sub> , 2-D, 98%)
DLM-449	L-Tyrosine (ring-3,5-D <sub>2</sub> , 98%)
DLM-451	L-Tyrosine (ring-D <sub>4</sub> , 98%)
DLM-589	L-Tyrosine (D <sub>7</sub> , 98%)
NLM-590	L-Tyrosine ( <sup>15</sup> N, 98%)
OLM-621	L-Tyrosine (phenol- <sup>17</sup> O, 35-40%)
OLM-8696	L-Tyrosine (phenol- <sup>18</sup> O, 85-90%)
CNLM-7610	L-Tyrosine (2,3- <sup>13</sup> C <sub>2</sub> , 99%; <sup>15</sup> N, 98%)
CNLM-439	L-Tyrosine (U- <sup>13</sup> C <sub>9</sub> , 99%; <sup>15</sup> N, 99%)
DNLM-7373	L-Tyrosine (D <sub>7</sub> , 98%; <sup>15</sup> N, 98%)
CDNLM-6815	L-Tyrosine (U- <sup>13</sup> C <sub>9</sub> , 97-99%; U-D <sub>7</sub> , 97-99%; <sup>15</sup> N, 97-99%)
CLM-166	DL-Valine (1- <sup>13</sup> C, 99%)
CLM-3277	DL-Valine (2- <sup>13</sup> C, 99%)
DLM-3340	DL-Valine (2-D, 98%)
DLM-3341	DL-Valine (3-D, 98%)
DLM-3342	DL-Valine (2,3-D <sub>2</sub> , 98%)
DLM-3675	DL-Valine (dimethyl-D <sub>6</sub> , 98%)
DLM-311	DL-Valine (D <sub>8</sub> , 98%)
NLM-236	DL-Valine ( <sup>15</sup> N, 98%)
CNLM-8677	DL-Valine (2- <sup>13</sup> C, 99%; <sup>15</sup> N, 98%)
CLM-470	L-Valine (1- <sup>13</sup> C, 99%)
CLM-3050	L-Valine (2- <sup>13</sup> C, 99%)
CLM-2249	L-Valine (U- <sup>13</sup> C <sub>5</sub> , 99%)
DLM-7732	L-Valine (3-D, 98%)
DLM-4364	L-Valine (2,3-D <sub>2</sub> , 98%)
DLM-488	L-Valine (D <sub>8</sub> , 98%)
NLM-316	L-Valine ( <sup>15</sup> N, 98%)
CNLM-3466	L-Valine (1- <sup>13</sup> C, 99%; <sup>15</sup> N, 98%)
CNLM-8678	L-Valine (2- <sup>13</sup> C, 99%; <sup>15</sup> N, 98%)
CNLM-442	L-Valine (U- <sup>13</sup> C <sub>5</sub> , 97-99%; <sup>15</sup> N, 97-99%)
DNLM-4643	L-Valine (D <sub>8</sub> , 97%; <sup>15</sup> N, 97%)
CDNLM-6817	L-Valine (U- <sup>13</sup> C <sub>5</sub> , 97-99%; U-D <sub>8</sub> , 97-99%; <sup>15</sup> N, 97-99%)

## Carbohydrates

Catalog No.	Description
CLM-715	D-Arabinose (1- <sup>13</sup> C, 99%)
CLM-1288	D-Arabinose (2- <sup>13</sup> C, 98%)
CLM-8477	D-Arabinose (U- <sup>13</sup> C <sub>5</sub> , 99%)
DLM-1379	D-Arabinose (2-D, 98%)
CLM-1824	2-Deoxy-D-glucose (1- <sup>13</sup> C, 99%)
CLM-2122	2-Deoxy-D-glucose (6- <sup>13</sup> C, 99%)
DLM-6732	2-Deoxy-D-glucose (1-D, 98%)
DLM-6940	2-Deoxy-D-glucose (U-D <sub>8</sub> , 98%) CP 88%

Catalog No.	Description
CLM-7266	2-Deoxy-D-ribose (1- <sup>13</sup> C, 99%)
DLM-4750	2-Deoxy-D-ribose (5,5-D <sub>2</sub> , 98%)
CLM-1118	D-Erythrose (1- <sup>13</sup> C, 99%) 1.2% in H <sub>2</sub> O
CLM-1387	D-Erythrose (2- <sup>13</sup> C, 99%) 1.2% in H <sub>2</sub> O
CLM-8944	D-Erythrose (4- <sup>13</sup> C, 99%) 1.2% in H <sub>2</sub> O
CLM-7863	D-Erythrose (U- <sup>13</sup> C <sub>4</sub> , 98%) 1.2% in H <sub>2</sub> O
CLM-1201	D-Fructose (1- <sup>13</sup> C, 99%)
CLM-1527	D-Fructose (2- <sup>13</sup> C, 99%)
CLM-7660	D-Fructose (3- <sup>13</sup> C, 99%)
CLM-7661	D-Fructose (4- <sup>13</sup> C, 99%)
CLM-7662	D-Fructose (5- <sup>13</sup> C, 99%)
CLM-1388	D-Fructose (6- <sup>13</sup> C, 99%)
CLM-528	D-Fructose (1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-2462	D-Fructose (1,6- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-8415	D-Fructose (1,2,3- <sup>13</sup> C <sub>3</sub> , 99%)
CLM-1553	D-Fructose (U- <sup>13</sup> C <sub>6</sub> , 99%)
DLM-1389	D-Fructose (6,6-D <sub>2</sub> , 98%)
DLM-6050	D-Fructose (1-D, 98%)
CLM-3705	L-Fructose (1- <sup>13</sup> C, 99%)
CLM-219	L-Fructose (6- <sup>13</sup> C, 99%)
CLM-6678	D-Fructose-1,6-bisphosphate, sodium salt (hydrate) (1- <sup>13</sup> C, 99%)
CLM-8962	D-Fructose-1,6-bisphosphate, disodium salt (hydrate) (U- <sup>13</sup> C <sub>6</sub> , 98%)
CLM-8616	D-Fructose-6-phosphate, disodium salt (hydrate) (U- <sup>13</sup> C <sub>6</sub> , 99%)
CLM-8998	D-Galactose-1-phosphate, dipotassium salt (1- <sup>13</sup> C, 99%)
CLM-745	D-Galactose (2- <sup>13</sup> C, 99%)
CLM-4217	D-Galactose (1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-1570	D-Galactose (U- <sup>13</sup> C <sub>6</sub> , 99%)
DLM-1390	D-Galactose (1-D, 98%)
DLM-1391	D-Galactose (2-D, 98%)
CLM-420	D-Glucose (1- <sup>13</sup> C, 98-99%)
CLM-746	D-Glucose (2- <sup>13</sup> C, 99%)
CLM-1393	D-Glucose (3- <sup>13</sup> C, 99%)
CLM-1394	D-Glucose (4- <sup>13</sup> C, 99%)
CLM-1395	D-Glucose (5- <sup>13</sup> C, 98%)
CLM-481	D-Glucose (6- <sup>13</sup> C, 99%)
CLM-504	D-Glucose (1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-2717	D-Glucose (1- <sup>13</sup> C, 99%; 6- <sup>13</sup> C, 97%+)
CLM-6750	D-Glucose (3,4- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-8787	D-Glucose (4,5- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-4673	D-Glucose (1,2,3- <sup>13</sup> C <sub>3</sub> , 99%)
CLM-8770	D-Glucose (4,5,6- <sup>13</sup> C <sub>3</sub> , 98%)
CLM-8946	D-Glucose (2,3,4,5,6- <sup>13</sup> C <sub>5</sub> , 99%)
CLM-1396	D-Glucose (U- <sup>13</sup> C <sub>6</sub> , 99%)
CLM-4819	D-Glucose (U- <sup>12</sup> C <sub>6</sub> , 99.9%)
DLM-1150	D-Glucose (1-D, 98%)
DLM-1271	D-Glucose (2-D, 98%)
DLM-3557	D-Glucose (3-D, 98%)
DLM-6754	D-Glucose (5-D, 98%)
DLM-349	D-Glucose (6,6-D <sub>2</sub> , 99%)
DLM-2062	D-Glucose (1,2,3,4,5,6,6-D <sub>7</sub> , 98%)
DLM-9047	D-Glucose (U-D <sub>12</sub> , 98%)
CDLM-6064	D-Glucose (1- <sup>13</sup> C, 99%; 1-D, 98%)
CDLM-999	D-Glucose (1- <sup>13</sup> C, 99%; 2-D, 98%)
CDLM-4895	D-Glucose (1- <sup>13</sup> C, 99%; 6- <sup>13</sup> C, 97%+; 6,6-D <sub>2</sub> , 98%)
CDLM-3813	D-Glucose (U- <sup>13</sup> C <sub>6</sub> , 99%; 1,2,3,4,5,6,6-D <sub>7</sub> , 97-98%)
CLM-1966	L-Glucose (1- <sup>13</sup> C, 99%)
CLM-1399	L-Glucose (2- <sup>13</sup> C, 99%)

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Catalog No.	Description
CLM-8813	D-Glucose-1-phosphate, dicyclohexylammonium salt monohydrate (U- <sup>13</sup> C <sub>6</sub> , 99%+)
CLM-8367	D-Glucose-6-phosphate, disodium salt (hydrate) (U- <sup>13</sup> C <sub>6</sub> , 99%+)
DLM-7826	Myo-Inositol (2-D <sub>1</sub> , 91%)
CLM-4423	Lactose•H <sub>2</sub> O (glucose- <sup>13</sup> C <sub>6</sub> , 98%+)
CLM-1127	D-Lyxose (1- <sup>13</sup> C, 99%)
CLM-1525	D-Lyxose (2- <sup>13</sup> C, 99%)
CLM-1128	D-Lyxose (5- <sup>13</sup> C, 99%)
DLM-1187	D-Lyxose (1-D, 98%)
DLM-1188	D-Lyxose (2-D, 98%)
CLM-2470	L-Lyxose (1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-2642	D-Maltose•H <sub>2</sub> O (U- <sup>13</sup> C <sub>12</sub> , 99%)
CLM-358	D-Mannose (1- <sup>13</sup> C, 99%)
CLM-1523	D-Mannose (2- <sup>13</sup> C, 99%)
CLM-1192	D-Mannose (6- <sup>13</sup> C, 99%)
CLM-6567	D-Mannose (U- <sup>13</sup> C <sub>6</sub> , 99%)
DLM-1193	D-Mannose (1-D, 98%)
DLM-1194	D-Mannose (2-D, 98%)
DLM-1195	D-Mannose (6,6-D <sub>2</sub> , 98%)
CLM-1218	L-Mannose (1- <sup>13</sup> C, 99%)
CLM-768	D-Ribose (1- <sup>13</sup> C, 99%)
CLM-1069	D-Ribose (2- <sup>13</sup> C, 99%)
CLM-1066	D-Ribose (5- <sup>13</sup> C, 99%)
CLM-4602	D-Ribose (1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-4830	D-Ribose (2,3,4,5- <sup>13</sup> C <sub>4</sub> , 99%)
CLM-3652	D-Ribose (U- <sup>13</sup> C <sub>5</sub> , 98%)
DLM-1070	D-Ribose (1-D, 98%)
DLM-1197	D-Ribose (2-D, 98%)
DLM-6559	D-Ribose (3-D, 98%)
DLM-7778	D-Ribose (5,5-D <sub>2</sub> , 98%)
DLM-346	D-Ribose (2,3,4,5,5'-D <sub>5</sub> , 98%)
CLM-8780	Sodium D-Gluconate (1- <sup>13</sup> C, 99%)
CLM-8781	Sodium D-Gluconate (U- <sup>13</sup> C <sub>6</sub> , 99%)
CLM-8091	D-Sucrose (glucose- <sup>13</sup> C <sub>6</sub> , 98%)
CLM-7757	D-Sucrose ( <sup>13</sup> C <sub>12</sub> , 98%)
CLM-773	D-Talose (1- <sup>13</sup> C, 99%)
CLM-1204	D-Talose (2- <sup>13</sup> C, 99%)
CLM-1139	D-Threose (1- <sup>13</sup> C, 99%) 1.8% in H <sub>2</sub> O
CLM-1207	D-Threose (2- <sup>13</sup> C, 99%) 1.8% in H <sub>2</sub> O
CLM-1140	D-Xylose (1- <sup>13</sup> C, 99%)
CLM-1524	D-Xylose (2- <sup>13</sup> C, 99%)
CLM-8593	D-Xylose (3- <sup>13</sup> C, 99%)
CLM-1219	D-Xylose (5- <sup>13</sup> C, 99%)
CLM-2456	D-Xylose (1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-6140	D-Xylose (U- <sup>13</sup> C <sub>5</sub> , 99%)
DLM-1215	D-Xylose (1-D, 99%)
DLM-1216	D-Xylose (2-D, 98%)
DLM-7121	D-Xylose (D <sub>6</sub> , 98%)

## Fatty Acids

Catalog No.	Description
DLM-2497	Algal fatty acid mixture (methyl esters) (U-D, 96-98%)
CLM-2063	Algal lipid mixture (U- <sup>13</sup> C, 98%+)
CLM-1239	Arachidic acid (1- <sup>13</sup> C, 99%) (eicosanoic acid)
DLM-1234	Arachidic acid (methyl-D <sub>3</sub> , 98%)
DLM-1233	Arachidic acid (D <sub>33</sub> , 98%)

Catalog No.	Description
DLM-2006	Decanoic acid (methyl-D <sub>3</sub> , 98%)
DLM-270	Decanoic acid (D <sub>19</sub> , 98%)
DLM-7974	Dimyristin (dimyristoyl-D <sub>54</sub> , 98%)
DLM-8273	Dipalmitin (D <sub>67</sub> , 98%)
CLM-8388	Docosahexaenoic acid (U- <sup>13</sup> C <sub>22</sub> , 95%+) CP 95%+
CLM-8398	Docosahexaenoic acid, methyl ester (docosahexaenoate- <sup>13</sup> C <sub>22</sub> , 95%+) CP 95%+
CLM-8274	Ethyl hexanoate (hexanoate- <sup>13</sup> C <sub>6</sub> , 99%)
DLM-1308	Heptadecanoic acid (methyl-D <sub>3</sub> , 98%)
DLM-6905	Heptadecanoic acid (D <sub>33</sub> , 98%)
DLM-1820	Heptanoic acid (2,2,3,3-D <sub>4</sub> , 98%)
DLM-2731	Heptanoic acid (D <sub>13</sub> , 98%)
DLM-8510	Hexacosanoic acid (12,12,13,13-D <sub>4</sub> , 98%)
DLM-2922	DL-3-Hydroxytetradecanoic acid (2,2,3,4,4-D <sub>5</sub> , 96%)
DLM-3062	Lauric acid (methyl-D <sub>3</sub> , 99%)
CLM-6855	Linoleic acid (U- <sup>13</sup> C <sub>18</sub> , 98%) 94%+ (<10% <i>cis/trans</i> isomer)
CLM-2119	Linoleic acid, ethyl ester (1- <sup>13</sup> C, 99%)
CLM-3960	Linoleic acid, ethyl ester (linoleate-U- <sup>13</sup> C <sub>18</sub> , 98%) CP 95%+
DLM-1909	Linoleic acid, ethyl ester (9,10,12,13-D <sub>4</sub> , 95%)
DLM-227	Linoleic acid, ethyl ester (17,17,18,18,18-D <sub>5</sub> , 98%)
DLM-766	Linoleic acid, ethyl ester (D <sub>31</sub> , 98%) CP 95%+
CLM-8395	Linoleic acid, methyl ester (linoleate- <sup>13</sup> C <sub>18</sub> , 98%+) CP 95%
CLM-6229	Linoleic acid, potassium salt (1- <sup>13</sup> C, 99%)
CLM-8835	Linoleic acid, potassium salt (U- <sup>13</sup> C <sub>18</sub> , 98%) CP 97%
DLM-2160	Linolenic acid (D <sub>29</sub> , 98%)
DLM-2351	Linolenic acid, ethyl ester (17,17,18,18,18-D <sub>5</sub> , 98%) CP 90%
CDLM-8376	Mixed fatty acids (U- <sup>13</sup> C, 98%+; U-D, 97%+)
CLM-8373	Mixed triglycerides (U- <sup>13</sup> C, 98%+)
CLM-1844	Myristic acid (1- <sup>13</sup> C, 99%)
CLM-3665	Myristic acid (1,2,3- <sup>13</sup> C <sub>3</sub> , 99%)
DLM-1039	Myristic acid (methyl-D <sub>3</sub> , 98%)
DLM-208	Myristic acid (D <sub>27</sub> , 98%)
CLM-6228	Myristic acid, potassium salt (1- <sup>13</sup> C, 99%)
CLM-8724	Nonanoic acid (U- <sup>13</sup> C <sub>9</sub> , 98%)
DLM-4533	DL-α-Phosphatidylcholine, dimyristoyl (DMPC) (D <sub>72</sub> , 98%)
DLM-605	L-α-Phosphatidylcholine, dimyristoyl (DMPC) (dimyristoyl-D <sub>54</sub> , 98%) CP 95%
DLM-606	L-α-Phosphatidylcholine, dipalmitoyl (DPPC) (dipalmitoyl-D <sub>62</sub> , 98%) CP 95%
DLM-7558	L-Phosphatidylglycerol, dimyristoyl (DMPG) (dimyristoyl-D <sub>54</sub> , 98%)
DLM-7557	L-Phosphatidylglycerol, dipalmitoyl (DPPG) (dipalmitoyl-D <sub>62</sub> , 98%)
CLM-293	Octanoic acid (1- <sup>13</sup> C, 99%)
CLM-3827	Octanoic acid (1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-2721	Octanoic acid (1,2,3,4- <sup>13</sup> C <sub>4</sub> , 99%)
CLM-3981	Octanoic acid ( <sup>13</sup> C <sub>8</sub> , 99%)
DLM-619	Octanoic acid (D <sub>15</sub> , 98%)
CLM-4259	Octanoyl-1,3-diolein (octanoyl-1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-4258	Octanoyl-1,3-distearin (octanoyl-1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-3707	2-Octanoyl-1,3-distearin (octanoic-1- <sup>13</sup> C, 99%)
CLM-149	Oleic acid (1- <sup>13</sup> C, 99%)
CLM-2492	Oleic acid (methyl- <sup>13</sup> C, 99%)
CLM-460	Oleic acid (U- <sup>13</sup> C <sub>18</sub> , 98%) CP 95%
DLM-689	Oleic acid (9,10-D <sub>2</sub> , 97%)
DLM-2968	Oleic acid (11,11-D <sub>2</sub> , 98%)
DLM-1891	Oleic acid (D <sub>33</sub> , 98%)

Catalog No.	Description
CLM-3959	Oleic acid, ethyl ester (oleate-U- <sup>13</sup> C <sub>18</sub> , 98%+)
DLM-8747	Oleic acid, ethyl ester (D <sub>39</sub> , 98%) CP 95%+
CLM-4337	Oleic acid, methyl ester (oleate- <sup>13</sup> C <sub>18</sub> , 98%+)
CLM-4477	Oleic acid, potassium salt (1- <sup>13</sup> C, 99%)
CLM-8856	Oleic acid, potassium salt (U- <sup>13</sup> C <sub>18</sub> , 98%) CP 95%
DLM-8837	Oleic acid, potassium salt (15,15,16,16,17,17,18,18,18-D <sub>9</sub> , 98%)
CLM-6230	Oleic acid, sodium salt (1- <sup>13</sup> C, 99%)
CLM-8763	Oleic acid, sodium salt (U- <sup>13</sup> C <sub>18</sub> , 98%)
CLM-150	Palmitic acid (1- <sup>13</sup> C, 99%)
CLM-2120	Palmitic acid (2- <sup>13</sup> C, 99%)
CLM-2253	Palmitic acid (methyl- <sup>13</sup> C, 99%)
CLM-214	Palmitic acid (1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-7896	Palmitic acid (1,2,3,4- <sup>13</sup> C <sub>4</sub> , 99%)
CLM-409	Palmitic acid (U- <sup>13</sup> C <sub>16</sub> , 98%)
DLM-8673	Palmitic acid (12-D <sub>1</sub> , 98%)
DLM-1153	Palmitic acid (2,2-D <sub>2</sub> , 98%)
DLM-2889	Palmitic acid (3,3-D <sub>2</sub> , 98%)
DLM-2890	Palmitic acid (9,9-D <sub>2</sub> , 98%)
DLM-2891	Palmitic acid (13,13-D <sub>2</sub> , 98%)
DLM-611	Palmitic acid (methyl-D <sub>3</sub> , 98%)
DLM-2892	Palmitic acid (5,5,6,6-D <sub>4</sub> , 98%)
DLM-2893	Palmitic acid (7,7,8,8-D <sub>4</sub> , 98%)
DLM-2894	Palmitic acid (11,11,12,12-D <sub>4</sub> , 98%)
DLM-2895	Palmitic acid (9,9,...16,16,16-D <sub>17</sub> , 98%) CP 97%
DLM-215	Palmitic acid (D <sub>31</sub> , 98%)
CLM-3957	Palmitic acid, ethyl ester (palmitate-U- <sup>13</sup> C <sub>16</sub> , 98%+) CP 95%
DLM-8793	Palmitic acid, ethyl ester (D <sub>31</sub> , 98%)
CLM-8390	Palmitic acid, methyl ester (palmitate- <sup>13</sup> C <sub>16</sub> , 98%+)
CLM-2241	Palmitoleic acid ( <sup>13</sup> C <sub>16</sub> , 99%) CP 95-99%
CLM-3958	Palmitoleic acid, ethyl ester (palmitoleate-U- <sup>13</sup> C <sub>16</sub> , 98%+) CP 95%+
CLM-8391	Palmitoleic acid, methyl ester (palmitoleate- <sup>13</sup> C <sub>16</sub> , 98%+)
CLM-8384	Palmitolenic acid (U- <sup>13</sup> C <sub>16</sub> , 98%+) CP >90%
CLM-8392	Palmitolenic acid, methyl ester (palmitolenate- <sup>13</sup> C <sub>16</sub> , 98%+)
DLM-1307	Pentadecanoic acid (methyl-D <sub>3</sub> , 98%)
DLM-572	Pentanoic acid (D <sub>9</sub> , 98%)
CLM-1889	Potassium palmitate (1- <sup>13</sup> C, 99%)
CLM-6865	Potassium palmitate (1,2,3,4- <sup>13</sup> C <sub>4</sub> , 99%)
CLM-3943	Potassium palmitate (U- <sup>13</sup> C <sub>16</sub> , 98%+)
DLM-3773	Potassium palmitate (2,2-D <sub>2</sub> , 97%)
DLM-6199	Potassium palmitate (methyl-D <sub>3</sub> , 98%)
DLM-6033	Potassium palmitate (7,7,8,8-D <sub>4</sub> , 98%)
CLM-1948	Sodium octanoate (1- <sup>13</sup> C, 99%)
CLM-3876	Sodium octanoate (1,2,3,4- <sup>13</sup> C <sub>4</sub> , 99%)
CLM-3980	Sodium octanoate (2,4,6,8- <sup>13</sup> C <sub>4</sub> , 99%)
CLM-174	Sodium palmitate (1- <sup>13</sup> C, 99%)
CLM-6059	Sodium palmitate ( <sup>13</sup> C <sub>16</sub> , 98%+)
CLM-490	Stearic acid (methyl- <sup>13</sup> C, 99%)
CLM-676	Stearic acid (1- <sup>13</sup> C, 99%)
CLM-6990	Stearic acid (U- <sup>13</sup> C <sub>18</sub> , 98%) CP 97%
DLM-1154	Stearic acid (methyl-D <sub>3</sub> , 98%)
DLM-379	Stearic acid (D <sub>35</sub> , 98%)
CLM-8731	Stearic acid, ethyl ester (stearate- <sup>13</sup> C <sub>18</sub> , 98%+)
DLM-8748	Stearic acid, ethyl ester (D <sub>35</sub> , 98%)
CLM-8394	Stearic acid, methyl ester (stearate- <sup>13</sup> C <sub>18</sub> , 98%+)
CLM-6227	Stearic acid, potassium salt (1- <sup>13</sup> C, 99%)
DLM-7302	Tetracosanoic acid (D <sub>47</sub> , 98%)
DLM-7487	Tetradecanoic acid (13,13,14,14,14-D <sub>5</sub> , 98%)

Catalog No.	Description
DLM-1392	Tridecanoic acid (D <sub>25</sub> , 98%)
CLM-162	Trioctanoic (1,1,1- <sup>13</sup> C <sub>3</sub> , 99%)
CLM-163	Triolein (1,1,1- <sup>13</sup> C <sub>3</sub> , 99%)
CLM-164	Tripalmitin (1,1,1- <sup>13</sup> C <sub>3</sub> , 99%)
CLM-8445	Tripalmitin (glyceryl- <sup>13</sup> C <sub>3</sub> , 99%)
DLM-9044	Tripalmitin (U-D <sub>99</sub> , 98%)
DLM-7875	Tristearin (tristearoyl-D <sub>105</sub> , 98%)

## Steroids

Catalog No.	Description
DLM-8438	Aldosterone (2,2,4,6,6,17,21,21-D <sub>8</sub> )
DLM-7534	5 $\alpha$ -Androstan-17 $\alpha$ -methyl-17 $\beta$ -ol-3-one (1,2,4,5A-D <sub>4</sub> , 98%)
DLM-8750	5 $\beta$ -Androstan-3 $\alpha$ -ol-17-one (16,16-D <sub>2</sub> , 98%)
DLM-7976	4-Androstene-3,17-dione (2,2,4,6,6,16,16-D <sub>7</sub> , 97%)
ULM-8472	4-Androstene-3,17-dione (unlabeled)
DLM-7937	Androsterone (16,16-D <sub>2</sub> , 98%)
DLM-6780	Chenodeoxycholic acid (2,2,4,4-D <sub>4</sub> , 98%)
DLM-4700	Cholestane (3,3-D <sub>2</sub> , 98%)
DLM-8276	Cholestenone (2,2,4,6,6-D <sub>5</sub> , 98%)
CLM-804	Cholesterol (3,4- <sup>13</sup> C <sub>2</sub> , 99%)
DLM-1831	Cholesterol (3-D <sub>1</sub> , 98%)
DLM-7260	Cholesterol (25,26,26,26-D <sub>4</sub> , 98%)
DLM-2607	Cholesterol (2,2,3,4,4,6-D <sub>6</sub> , 97-98%)
DLM-3057	Cholesterol (25,26,26,26,27,27,27-D <sub>7</sub> , 98%)
OLM-7695	Cholesterol ( <sup>18</sup> O, 80%)
CLM-3361	Cholesterol-3-octanoate (octanoate-1- <sup>13</sup> C, 99%)
CLM-2710	Cholic acid (24- <sup>13</sup> C, 99%)
DLM-2611	Cholic acid (2,2,4,4-D <sub>4</sub> , 98%)
DLM-7347	Corticosterone (2,2,4,6,6,17a,21,21-D <sub>8</sub> , 97-98%)
DLM-2615	Cortisol (1,2-D <sub>2</sub> , 98%)
DLM-2057	Cortisol (9,12,12-D <sub>3</sub> , 98%)
DLM-2218	Cortisol (9,11,12,12-D <sub>4</sub> , 98%)
DLM-8863	Cortisone (1,2-D <sub>2</sub> , 98%)
DLM-4216	7-Dehydrocholesterol (25,26,26,26,27,27,27-D <sub>7</sub> , 98%)
DLM-7714	Dehydroepiandrosterone (DHEA) (16,16-D <sub>2</sub> , 97%)
DLM-8701	Dehydroepiandrosterone sulfate•sodium salt (DHEAS) (16,16-D <sub>2</sub> , 97%)
CLM-3364	Deoxycholic acid (24- <sup>13</sup> C, 99%)
DLM-2824	Deoxycholic acid (2,2,4,4-D <sub>4</sub> , 98%)
DLM-7209	11-Deoxycortisol (21,21-D <sub>2</sub> , 96%)
DLM-8305	21-Deoxycortisol (D <sub>8</sub> , 96%)
DLM-170	Diethylstilbestrol ( <i>cis/trans</i> mix) (ring-3,3',5,5'-diethyl-1,1,1',1'-D <sub>8</sub> , 98%)
DLM-3023	Dihydrotestosterone (16,16,17-D <sub>3</sub> , 98%)
DLM-9041	5 $\alpha$ -dihydrotestosterone (2,2,4,4-D <sub>4</sub> , 98%)
CLM-803	Estradiol (3,4- <sup>13</sup> C <sub>2</sub> , 99%)
DLM-3694	Estradiol (16,16,17-D <sub>3</sub> , 98%)
DLM-7468	Estril (2,4-D <sub>2</sub> , 98%)
DLM-8343	Estril (2,4,17-D <sub>3</sub> , 98%) CP 96%
DLM-8583	Estril (2,4,16,17-D <sub>4</sub> , 98%) CP 95%
DLM-8586	Estril (2,4,16-D <sub>3</sub> , 98%)
CLM-673	Estrone (3,4- <sup>13</sup> C <sub>2</sub> , 99%)
DLM-3976	Estrone (2,4,16,16-D <sub>4</sub> , 97%)
CLM-8033	DL-Estrone 3-methyl ether (13,14,15,16,17,18- <sup>13</sup> C <sub>6</sub> , 99%)
DLM-4691	17 $\alpha$ -Ethinylestradiol (2,4,16,16-D <sub>4</sub> , 97-98%)

CLM products are labeled "For research use only; they are not intended for diagnostic purposes."



Catalog No.	Description
DLM-8646	7- $\alpha$ -Hydroxycholesterol (25,26,26,26,27,27,27-D <sub>7</sub> , 98%) CP 97%
DLM-7206	17-Hydroxypregnenolone (21,21,21-D <sub>3</sub> , 97%)
DLM-6598	17-Hydroxyprogesterone (2,2,4,6,6,21,21,21-D <sub>8</sub> , 98%)
DLM-8647	7-Ketocholesterol (25,26,26,26,27,27,27-D <sub>7</sub> , 99%)
CLM-2468	Norethindrone (ethynyl- <sup>13</sup> C <sub>2</sub> , 99%)
DLM-3979	19-Nortestosterone (16,16,17-D <sub>3</sub> , 98%)
ULM-4841	19-Nortestosterone (unlabeled)
ULM-222	Pregna-1,4,6-triene-3,20-dione (unlabeled)
DLM-3754	5- $\alpha$ -Pregnan-3- $\alpha$ -ol-20-one (17,21,21,21-D <sub>4</sub> , 96-98%) CP 95%+
ULM-3779	5- $\alpha$ -Pregnan-3- $\alpha$ -ol-20-one (unlabeled) CP 97%
DLM-7492	5- $\alpha$ -Pregnan-3- $\beta$ -ol-20-one (17a,21,21,21-D <sub>4</sub> , 97%+) CP 96%
ULM-8242	5- $\alpha$ -Pregnan-3- $\beta$ -ol-20-one (unlabeled)
DLM-2294	5- $\beta$ -Pregnan-3- $\alpha$ -ol-20-one (17,21,21,21-D <sub>4</sub> , 96-98%)
DLM-8751	5- $\beta$ -Pregnan-3- $\alpha$ , 11- $\beta$ , 17- $\alpha$ , 21-tetrol-20-one (9,11 $\alpha$ , 12-D <sub>3</sub> , 95%)
DLM-8753	5- $\beta$ -Pregnan-3- $\alpha$ , 17- $\alpha$ , 20-triol (20,21,21,21-D <sub>4</sub> , 98%) mix of 20 $\alpha$ & 20 $\beta$
DLM-3910	5- $\alpha$ -Pregnane-3- $\alpha$ , 21-diol-20-one (17,21,21-D <sub>3</sub> , 95%)
DLM-3816	5- $\alpha$ -Pregnane-3,20-dione (1,2,4,5,6,7-D <sub>6</sub> , 95%)
DLM-3817	5- $\beta$ -Pregnane-3,20-dione (1,2,4,5,6,7-D <sub>6</sub> , 95%)
DLM-7228	4-Pregnen-21-ol-3,20-dione (2,2,4,6,6,17,21,21-D <sub>8</sub> , 96%) CP 95%
DLM-6896	Pregnenolone (17,21,21,21-D <sub>4</sub> , 98%)
CLM-457	Progesterone (3,4- <sup>13</sup> C <sub>2</sub> , 90%)
DLM-6909	Progesterone (2,2,6,6,17,21,21,21-D <sub>8</sub> , 96%)
DLM-7953	Progesterone (2,2,4,6,6,17a,21,21,21-D <sub>9</sub> , 98%)
DLM-3312	Prostaglandin A2 (3,3,4,4-D <sub>4</sub> , 98%)
DLM-3627	Prostaglandin A2 (3,3,4,4-D <sub>4</sub> , 98%) in solution
DLM-3728	Prostaglandin E1 (3,3,4,4-D <sub>4</sub> , 98%) in solution
DLM-3592	Prostaglandin E2 (3,3,4,4-D <sub>4</sub> , 98%) 500 $\mu$ g/mL in methyl acetate
DLM-3628	Prostaglandin E2 (3,3,4,4-D <sub>4</sub> , 98%) in solution
DLM-3558	Prostaglandin F2 $\alpha$ (3,3,4,4-D <sub>4</sub> , 98%) in solution
DLM-4200	9- $\alpha$ , 11- $\alpha$ -Prostaglandin F2 (3,3',4,4'-D <sub>4</sub> , 98%) in solution
DLM-7457	Sodium 17 $\beta$ -Estradiol 3-sulfate (2,4,16,16-D <sub>4</sub> , 98%) stabilized with 50% w/w tris
DLM-7456	Sodium estrone 3-sulfate (2,4,16,16-D <sub>4</sub> , 98%) stabilized with 50% w/w tris
CLM-159	Testosterone (3,4- <sup>13</sup> C <sub>2</sub> , 99%)
DLM-683	Testosterone (1,2-D <sub>2</sub> , 98%)
DLM-6224	Testosterone (16,16,17-D <sub>3</sub> , 98%)
DLM-8085	Testosterone (2,2,4,6,6-D <sub>5</sub> , 98%)
ULM-8081	Testosterone (unlabeled)
ULM-8933	Testosterone benzoate (unlabeled)
DLM-8265	Testosterone diacetate (testosterone-D <sub>4</sub> , acetate methyl-D <sub>6</sub> , 98%)
DLM-7477	3- $\alpha$ , 5- $\beta$ -Tetrahydrodeoxycorticosterone (17,21,21-D <sub>3</sub> , 97%) CP 96%

\*Please note that some products are controlled substances and will require appropriate documentation upon ordering.\*

\*\*CIL will be expanding the steroids and vitamins product listing soon! Please visit [www.isotope.com](http://www.isotope.com) or check with your sales representative for updates.\*\*

## Vitamins

Catalog No.	Description
DLM-7708	25-Hydroxyvitamin D <sub>3</sub> (26,26,26,27,27,27-D <sub>6</sub> , 98%)
CLM-7563	Pyridoxine•HCl (vitamin B <sub>6</sub> ) (4,5-bis (hydroxymethyl)- <sup>13</sup> C <sub>4</sub> , 99%)
CLM-8870	Vitamin A acetate (12,13,14,20- <sup>13</sup> C <sub>4</sub> , 99%)
CLM-4831	Vitamin A acetate (8,9,10,12,13,14,19,20- <sup>13</sup> C <sub>8</sub> , 99%)
CLM-7277	Vitamin A acetate (8,9,10,11,12,13,14,15,19,20- <sup>13</sup> C <sub>10</sub> , 99%)
DLM-2244	Vitamin A acetate 3-4% cis (10,19,19,19-D <sub>4</sub> , 96%)

Catalog No.	Description
DLM-3828	Vitamin A acetate 3-4% cis (19,19,19,20,20,20-D <sub>6</sub> , 96%)
DLM-4203	Vitamin A acetate 3-4% cis (10,14,19,19,19,20,20,20-D <sub>8</sub> , 90%)
CLM-7667	Vitamin B1 (thiamine chloride) (4,5,4-methyl- <sup>13</sup> C <sub>3</sub> , 99%)
CNLM-8851	Vitamin B2 (riboflavin) ( <sup>13</sup> C <sub>4</sub> , 99%; <sup>15</sup> N <sub>2</sub> , 98%) CP >97%
CNLM-7694	Vitamin B5 (pantothenic acid, calcium salt monohydrate) ( $\beta$ -alanyl- <sup>13</sup> C <sub>3</sub> , 99%; <sup>15</sup> N, 98%)
DLM-8985	Vitamin D <sub>2</sub> (ergocalciferol) (6,19,19-D <sub>3</sub> , 97%)
CLM-7850	Vitamin D <sub>3</sub> (cholecalciferol) ( <sup>13</sup> C <sub>2</sub> , 99%) CP 90%
DLM-8853	Vitamin D <sub>3</sub> (cholecalciferol) (D <sub>3</sub> , 97%) in ethanol solution at 1 mg/mL
DLM-8847	Vitamin E acetate (tocopherol acetate) (acetyl-D <sub>3</sub> , 98%)
DLM-7702	Vitamin K1 (phylloquinone) (ring-D <sub>4</sub> , 98%)

## MRS/MRI Products

Catalog No.	Description
CLM-317	Acetic acid (1- <sup>13</sup> C, 99%)
CLM-318	Acetic acid (2- <sup>13</sup> C, 99%)
CLM-113	Acetic acid (1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-548	Choline chloride (1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-344	Ethanol (1- <sup>13</sup> C, 99%) (<6% H <sub>2</sub> O)
CLM-130	Ethanol (2- <sup>13</sup> C, 99%) (<6% H <sub>2</sub> O)
CLM-551	Ethanol (1,2- <sup>13</sup> C <sub>2</sub> , 99%) (<6% H <sub>2</sub> O)
CLM-2291	Ethanolamine ( <sup>13</sup> C <sub>2</sub> , 99%)
CLM-3911	Ethanolamine•HCl (1- <sup>13</sup> C, 99%)
CLM-274	Ethanolamine•HCl (1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-522	Ethyl acetoacetate (1,3- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-523	Ethyl acetoacetate (2,4- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-1529	Fumaric acid ( <sup>13</sup> C <sub>4</sub> , 99%)
CLM-1397	Glycerol (2- <sup>13</sup> C, 99%)
CLM-1857	Glycerol (1,3- <sup>13</sup> C <sub>2</sub> , 99%)
DLM-1229	Glycerol (1,1,2,3,3-D <sub>5</sub> , 99%)
CLM-1189	D-Mannitol (1- <sup>13</sup> C, 98%)
CLM-646	Propionic acid (1- <sup>13</sup> C, 99%)
CLM-647	Propionic acid ( <sup>13</sup> C <sub>3</sub> , 99%)
CLM-8077	Pyruvic acid (1- <sup>13</sup> C, 99%)
CLM-8849	Pyruvic acid (2- <sup>13</sup> C, 99%) CP 95%
CLM-156	Sodium acetate (1- <sup>13</sup> C, 99%)
CLM-381	Sodium acetate (2- <sup>13</sup> C, 99%)
CLM-440	Sodium acetate (1,2- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-1256	Sodium butyrate (1- <sup>13</sup> C, 99%)
CLM-3706	Sodium D-3-hydroxybutyrate (2,4- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-3634	Sodium DL-3-hydroxybutyrate (2,4- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-1577	Sodium L-lactate (1- <sup>13</sup> C, 99%) 20% w/w in H <sub>2</sub> O
CLM-1578	Sodium L-lactate (3- <sup>13</sup> C, 98%) 20% w/w in H <sub>2</sub> O
CLM-1579	Sodium L-lactate ( <sup>13</sup> C <sub>3</sub> , 98%) 20% w/w in H <sub>2</sub> O
CLM-1506	Sodium propionate (2- <sup>13</sup> C, 99%)
CLM-1865	Sodium propionate ( <sup>13</sup> C <sub>3</sub> , 99%)
CLM-3042	Sodium propionate (2,3- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-4573	Sodium propionate (3- <sup>13</sup> C, 99%)
CLM-771	Sodium propionate (1- <sup>13</sup> C, 99%)
CLM-1082	Sodium pyruvate (1- <sup>13</sup> C, 99%)
CLM-1575	Sodium pyruvate (3- <sup>13</sup> C, 99%)
CLM-1580	Sodium pyruvate (2- <sup>13</sup> C, 99%)
CLM-1565	D-Sorbitol (1- <sup>13</sup> C, 99%) (monohydrate or semihydrate)
CLM-8529	D-Sorbitol (U- <sup>13</sup> C <sub>6</sub> , 98%+)

## Water

Catalog No.	Description
DLM-4-70	Deuterium oxide (D, 70%)
DLM-4-99	Deuterium oxide (D, 99%)
DLM-4-99.8	Deuterium oxide (D, 99.8%)
DLM-4	Deuterium oxide (D, 99.9%)
DLM-6	Deuterium oxide "100%" (D, 99.96%)
DLM-11	Deuterium oxide (D, 99.9%) low paramagnetic
DOLM-242	Water (D <sub>2</sub> , 98%; <sup>18</sup> O, 97%)
OLM-240-10	Water ( <sup>18</sup> O, 10%)
OLM-240-50	Water ( <sup>18</sup> O, 50-60%)
OLM-240-97	Water ( <sup>18</sup> O, 97%)
OLM-240-99	Water ( <sup>18</sup> O, 99%)
OLM-782-10	Water ( <sup>17</sup> O, 10%)
OLM-782-20	Water ( <sup>17</sup> O, 20%)
OLM-782-40	Water ( <sup>17</sup> O, 35-40%)
OLM-782-70	Water ( <sup>17</sup> O, 70%)
OLM-782-85	Water ( <sup>17</sup> O, 85%)
OLM-782-90	Water ( <sup>17</sup> O, 90%)

\*\*Custom double-labeled water (<sup>18</sup>O; D) also available\*\*

## Other Products

Catalog No.	Description
CLM-2436	Acetaminophen (carbonyl- <sup>13</sup> C, 99%)
CNLM-3726	Acetaminophen (acetyl- <sup>13</sup> C <sub>2</sub> , 99%; <sup>15</sup> N, 98%+)
CLM-1220	N-Acetylglucosamine (N-acetyl-1- <sup>13</sup> C, 99%)
CLM-1827	N-Acetylglucosamine ( <sup>13</sup> C <sub>6</sub> , 99%)
NLM-8810	N-Acetylglucosamine ( <sup>15</sup> N, 98%)
DLM-7476	ADMA•HCl•H <sub>2</sub> O (asymmetric dimethylarginine) (2,3,3,4,4,5,5-D <sub>7</sub> , 98%)
CLM-630	Aminopyrine (N,N-dimethyl- <sup>13</sup> C <sub>2</sub> , 99%)
DLM-2762	Amitriptyline•HCl (N-methyl-D <sub>3</sub> , 98%)
DLM-3008	Amitriptyline•HCl (N,N-dimethyl-D <sub>6</sub> , 98%)
CLM-7642	D-Arabinitol (U- <sup>13</sup> C <sub>5</sub> , 98%+)
CLM-3085	L-Ascorbic acid (1- <sup>13</sup> C, 99%)
CLM-7283	L-Ascorbic acid (U- <sup>13</sup> C <sub>6</sub> , 98%)
CLM-6585	Aspirin (acetyl-1- <sup>13</sup> C, 99%)
CLM-3655	Azt (methyl- <sup>13</sup> C, 99%) CP 96%
DLM-2790	Buspirone•HCl (butyl-D <sub>3</sub> , 98%)
DLM-1871	L-Carnitine•HCl (methyl-D <sub>3</sub> , 98%)
DLM-3820	L-Carnitine•HCl (dimethyl-D <sub>6</sub> , 98%)
DLM-3555	L-Carnitine (trimethyl-D <sub>9</sub> , 98%)
ULM-7801	L-Carnitine (unlabeled)
DLM-754	L-Carnitine•HCl, O-acetyl (N-methyl-D <sub>3</sub> , 98%)
DLM-3821	L-Carnitine•HCl, O-acetyl (N,N-dimethyl-D <sub>6</sub> , 98%) CP 97%
DLM-3822	L-Carnitine•HCl, O-acetyl (N,N,N-trimethyl-D <sub>9</sub> , 98%) CP 95%+
ULM-7802	L-Carnitine•HCl, O-acetyl (unlabeled)
DLM-8275	L-Carnitine•ClO <sub>4</sub> , benzyl ester (N-methyl-D <sub>3</sub> , 98%)
DLM-3861	L-Carnitine•HCl, O-butryl (N-methyl-D <sub>3</sub> , 98%)
ULM-7704	L-Carnitine•HCl, O-butryl (unlabeled)
ULM-7195	L-Carnitine•HCl, O-decanoyl (unlabeled)
DLM-8162	L-Carnitine•HCl, O-dodecanoyl (N-methyl-D <sub>3</sub> , 98%)
ULM-8247	L-Carnitine (mono), O-glutaryl, dibenzyl (unlabeled)
DLM-6718	L-Carnitine•HCl, O-hexacosanoyl (N-methyl-D <sub>3</sub> , 98%) CP 80%
ULM-6719	L-Carnitine•HCl, O-hexacosanoyl (unlabeled) CP 80%
ULM-7198	L-Carnitine•HCl, O-hexanoyl (unlabeled)
DLM-3974	L-Carnitine•HCl, O-isovaleryl (N,N,N-trimethyl-D <sub>9</sub> , 98%)

Catalog No.	Description
ULM-4697	L-Carnitine•HCl, O-isovaleryl (unlabeled)
DLM-4425	L-Carnitine•HCl, O-myristoyl (N,N,N-trimethyl-D <sub>9</sub> , 98%)
ULM-7737	L-Carnitine•HCl, O-myristoyl (unlabeled)
DLM-755	L-Carnitine•HCl, O-octanoyl (N-methyl-D <sub>3</sub> , 98%)
ULM-7770	L-Carnitine•HCl, O-octanoyl (unlabeled)
DLM-1263	L-Carnitine•HCl, O-palmitoyl (N-methyl-D <sub>3</sub> , 98%)
ULM-7738	L-Carnitine•HCl, O-palmitoyl (unlabeled)
DLM-3973	L-Carnitine•HCl, O-propionyl (N-methyl-D <sub>3</sub> , 98%)
ULM-7705	L-Carnitine•HCl, O-propionyl (unlabeled)
CLM-6126	β-Carotene (10,10',11,11'- <sup>13</sup> C <sub>4</sub> , 99%)
DLM-3829	β-Carotene (19,19,19,19',19',19'-D <sub>6</sub> , 98%)
DLM-2439	β-Carotene (10,10',19,19,19,19',19',19'-D <sub>8</sub> , 97%)
DLM-1287	Clonidine•HCl (4,4,5,5-imidazoline-D <sub>4</sub> , 98%)
DLM-2816	Clozapine (4-methylpiperazinyl-D <sub>4</sub> , 97%)
CLM-7933	Creatine (guanidino- <sup>13</sup> C, 99%)
DLM-7504	Dexamethasone (4,6-α,21,21-D <sub>4</sub> , 96%) (18% D at C2 position)
DLM-1886	Diazepam (phenyl-D <sub>5</sub> , 98%)
CLM-3368	Dopamine•HCl (1- <sup>13</sup> C, 99%)
CLM-3369	Dopamine•HCl (ring- <sup>13</sup> C <sub>6</sub> , 99%)
DLM-2833	Dopamine•HCl (1,1-D <sub>2</sub> , 93%) CP 96-98%
DLM-2834	Dopamine•HCl (2,2-D <sub>2</sub> , 97-98%)
DLM-2181	Dopamine•HCl (ring-D <sub>3</sub> , 98%)
DLM-2498	Dopamine•HCl (1,1,2,2-D <sub>4</sub> , 97-98%)
CNLM-3445	Dopamine•HCl (1- <sup>13</sup> C, 99%; <sup>15</sup> N, 99%)
DLM-2290	Dopamine•HCl (ring-D <sub>3</sub> , 97%; 2,2-D <sub>2</sub> , 97%)
CLM-728	Caffeine (3-methyl- <sup>13</sup> C, 99%)
CLM-514	Caffeine (trimethyl- <sup>13</sup> C <sub>3</sub> , 99%)
NLM-332	Caffeine (1,3- <sup>15</sup> N <sub>2</sub> , 99%)
CNLM-333	Caffeine (2- <sup>13</sup> C, 99%; 1,3- <sup>15</sup> N <sub>2</sub> , 98%+)
CLM-1608	Chloral hydrate (trichloromethyl- <sup>13</sup> C, 97%)
CLM-7103	3-Chloro-L-tyrosine (ring- <sup>13</sup> C <sub>6</sub> , 99%) CP 95%+
CLM-4415	Citric acid (3- <sup>13</sup> C, 99%)
CLM-7337	Citric acid (1,5- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-148	Citric acid (2,4- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-9021	Citric acid ( <sup>13</sup> C <sub>6</sub> , 99%) CP 97%
DLM-3487	Citric acid (2,2,4,4-D <sub>4</sub> , 98%)
DLM-1819	DL-Cotinine (methyl-D <sub>3</sub> , 98%)
CLM-7401	L-Dopa (1- <sup>13</sup> C, 99%)
CLM-3723	L-Dopa (alkyl-2,3- <sup>13</sup> C <sub>2</sub> , 98%)
CLM-2231	L-Dopa (ring-3,5- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-1007	L-Dopa (ring- <sup>13</sup> C <sub>6</sub> , 99%)
CLM-3724	L-Dopa (ring- <sup>13</sup> C <sub>6</sub> , alkyl-2,3- <sup>13</sup> C <sub>2</sub> , 99%)
DLM-2084	L-Dopa (ring-D <sub>3</sub> , 98%)
COLM-2232	L-Dopa (2,3- <sup>13</sup> C <sub>2</sub> , 97%; 4-hydroxy- <sup>18</sup> O, 95%)
COLM-2233	L-Dopa (ring- <sup>13</sup> C <sub>6</sub> , 99%; 4-hydroxy- <sup>18</sup> O, 95%)
DLM-2744	Enalaprilat•H <sub>2</sub> O (phenyl-D <sub>5</sub> , 98%)
DLM-2745	Enalapril maleate (phenyl-D <sub>5</sub> , 98%)
CLM-3867	Epilactose (1- <sup>13</sup> C, 98%+)
CLM-123	Erythromycin (N-methyl- <sup>13</sup> C, 99%)
CLM-3672	Erythromycin (N,N-fimethyl- <sup>13</sup> C <sub>2</sub> , ~90%) 90-95% Erythromycin A
CLM-165	Erythromycin lactobionate salt (N-methyl- <sup>13</sup> C, 99%)
CLM-3758	Erythromycin lactobionate salt (N,N-dimethyl- <sup>13</sup> C <sub>2</sub> , ~90%)
CLM-7861	Folic acid ( <sup>13</sup> C <sub>5</sub> , 95%+) (contains ~10% H <sub>2</sub> O)
DLM-1539	Fumaric acid (2,3-D <sub>2</sub> , 98%)
DLM-7654	Fumaric acid (D <sub>4</sub> , 98%)
DLM-3996	Glybenclamide (cyclohexylamine-D <sub>11</sub> , 98%)

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Catalog No.	Description
DLM-2911	Histamine•2HCl ( $\alpha,\alpha,\beta,\beta$ -D <sub>4</sub> , 98%)
DLM-8259	DL-Homocysteine (3,3,4,4-D <sub>4</sub> , 98%) CP 95%+
DLM-3619	DL-Homocysteine (3,3,3',3',4,4,4',4'-D <sub>8</sub> , 98%)
CLM-8042	Hypoxanthine ( <sup>13</sup> C <sub>5</sub> , 99%)
DLM-8658	Hypoxanthine (2,8-D <sub>2</sub> , 98%)
DLM-2923	Hypoxanthine (2,3,7,8-D <sub>4</sub> , 98%)
NLM-8500	Hypoxanthine ( <sup>15</sup> N <sub>4</sub> , 98%)
CNLM-7894	Hypoxanthine ( <sup>13</sup> C <sub>5</sub> , 99%; <sup>15</sup> N <sub>4</sub> , 98%)
DLM-3035	Imipramine•HCl (2,4,6,8-D <sub>4</sub> , 98%)
CLM-7118	Ketoconazole (carbonyl- <sup>13</sup> C, 99%)
CLM-8468	$\alpha$ -Ketoisocaproic acid (1- <sup>13</sup> C, 99%)
CLM-2093	$\alpha$ -Ketoisocaproic acid, sodium salt (1- <sup>13</sup> C, 99%)
CLM-7742	$\alpha$ -Ketoisocaproic acid, sodium salt (2- <sup>13</sup> C, 99%)
DLM-1944	$\alpha$ -Ketoisocaproic acid, sodium salt (methyl-D <sub>3</sub> , 98%)
DLM-4214	$\alpha$ -Ketoisocaproic acid, sodium salt (isopropyl-D <sub>7</sub> , 98%)
CLM-4518	Lactose ureide•2H <sub>2</sub> O (ureide- <sup>13</sup> C, 99%)
ULM-4519	Lactose ureide•2H <sub>2</sub> O (unlabeled)
CLM-7613	Trans-lycopene (8,8',9,9',10,10',11,11',19,19'- <sup>13</sup> C <sub>10</sub> , 99%)
CLM-4416	D-Mannitol (2- <sup>13</sup> C, 99%)
CLM-6733	D-Mannitol (U- <sup>13</sup> C <sub>6</sub> , 99%)
DLM-7101	Melatonin (acetyl-D <sub>3</sub> , 98%)
DLM-3560	DL-Metanephrine•HCl ( $\alpha,\beta,\beta$ -D <sub>3</sub> , 98%)
CLM-1280	Methacetin (methoxy- <sup>13</sup> C, 99%)
DLM-2646	5-Methoxytryptamine•HCl ( $\alpha,\alpha,\beta,\beta$ -D <sub>4</sub> , 98%)
DLM-3856	Methyl-D-glucopyranoside (O-methyl-D <sub>3</sub> , glucose-D <sub>7</sub> , 98%)
DLM-2949	Tau-methyl-L-histidine (methyl-D <sub>3</sub> , 98%)
CLM-7522	Naproxen, sodium salt (O-methyl- <sup>13</sup> C, 98%)
CLM-3914	DL-Nicotine (3',4',5'- <sup>13</sup> C <sub>3</sub> , 99%)
DLM-1818	DL-Nicotine (methyl-D <sub>3</sub> , 98%)
CLM-7104	3-Nitro-L-tyrosine (ring- <sup>13</sup> C <sub>6</sub> , 99%) CP 94%+
DLM-3670	DL-Norepinephrine•HCl (1,2,2-D <sub>3</sub> , 95%)
DLM-8820	DL-Norepinephrine•HCl (ring-D <sub>3</sub> , 1,2,2-D <sub>3</sub> , 99%)
DLM-1888	Oxazepam (phenyl-D <sub>5</sub> , 98%)
CLM-1296	Phenacetin (ethoxy-1- <sup>13</sup> C, 99%)
CLM-432	Phenobarbital (2,4,5- <sup>13</sup> C <sub>3</sub> , 90%)
DLM-433	Phenobarbital (ethyl-D <sub>5</sub> , 98%)
DLM-1688	Phenobarbital (ring-D <sub>5</sub> , 99%)
CNLM-110	Phenobarbital (2- <sup>13</sup> C, 99%; 1,3- <sup>15</sup> N <sub>2</sub> , 99%)
CLM-3551	Potassium phosphoenol pyruvate (2- <sup>13</sup> C, 99%)
CLM-3398	Potassium phosphoenol pyruvate (2,3- <sup>13</sup> C <sub>2</sub> , 99%)
DLM-3041	Primidone (ethyl-D <sub>5</sub> , 98%)
CLM-320	Retinal (10- <sup>13</sup> C, 99%)
CLM-325	Retinal (11- <sup>13</sup> C, 99%)
CLM-326	Retinal (14- <sup>13</sup> C, 99%)
CLM-327	Retinal (15- <sup>13</sup> C, 99%)
DLM-7719	Retinal (D <sub>6</sub> , 96%+)
CLM-331	Retinoic acid (10- <sup>13</sup> C, 99%)
CLM-328	Retinoic acid (11- <sup>13</sup> C, 98%)
CLM-329	Retinoic acid (14- <sup>13</sup> C, 99%)
CLM-330	Retinoic acid (15- <sup>13</sup> C, 99%)
CLM-4343	Retinoic acid (10,11,14,15- <sup>13</sup> C <sub>4</sub> , 99%)
DLM-7720	Retinoic acid (D <sub>6</sub> , 96%+)
DLM-8113	Retinol (19,19,19,20,20,20-D <sub>6</sub> , 97%+)
DLM-4902	Retinyl palmitate (+0.5 mg/mL Bht) (10,19,19,19-D <sub>4</sub> , 96%)
CLM-1196	D-Ribitol (1- <sup>13</sup> C, 99%)

Catalog No.	Description
DLM-2659	DL-Secobarbital (1-methyl-D <sub>3</sub> , butyl-2,2-D <sub>2</sub> ,98%)
DLM-3579	Serotonin creatinine sulfate complex ( $\alpha,\alpha,\beta,\beta$ -D <sub>4</sub> , 98%)
DLM-3165	Sodium acetate (D <sub>3</sub> , 90%)
DLM-3126	Sodium acetate (D <sub>3</sub> , 99%)
OLM-1077	Sodium acetate ( <sup>18</sup> O <sub>2</sub> , 95%)
CDLM-611	Sodium acetate (1- <sup>13</sup> C, 99%; D <sub>3</sub> , 98%)
CDLM-1240	Sodium acetate (2- <sup>13</sup> C, 99%; D <sub>3</sub> , 98%)
CDLM-3457	Sodium acetate (1,2- <sup>13</sup> C <sub>2</sub> , 99%; D <sub>3</sub> , 98%)
COLM-1230	Sodium acetate (1- <sup>13</sup> C, 99%; <sup>18</sup> O <sub>2</sub> , 96%)
CLM-441	Sodium bicarbonate ( <sup>13</sup> C, 99%) CP 97%+
DLM-7644	Sodium D-3-hydroxybutyrate (4,4,4-D <sub>3</sub> , 99%)
CLM-3780	Sodium dichloroacetate ( <sup>13</sup> C <sub>2</sub> , 99%)
CLM-3507	Sodium pyruvate (2,3- <sup>13</sup> C <sub>2</sub> , 99%)
CLM-2440	Sodium pyruvate ( <sup>13</sup> C <sub>3</sub> , 99%)
DLM-6068	Sodium pyruvate (D <sub>3</sub> , 98%)
CDLM-6063	Sodium pyruvate (2- <sup>13</sup> C, 99%; D <sub>3</sub> , 98%)
CLM-1203	D-Talitol (1- <sup>13</sup> C, 99%)
CLM-6622	Taurine (1,2- <sup>13</sup> C <sub>2</sub> , 98%)
NLM-4472	Taurine ( <sup>15</sup> N, 98%+)
CLM-7119	Temozolomide (methyl- <sup>13</sup> C, 99%)
CLM-6725	L-Thyroxine (tyrosine-ring- <sup>13</sup> C <sub>6</sub> , 99%) CP 90%
ULM-8184	L-Thyroxine (unlabeled)
CLM-7491	<i>Cis</i> -(+/-)-Tramadol•HCl (methoxy- <sup>13</sup> C, 99%)
CLM-7185	3,3',5-Triiodo-L-thyronine (ring- <sup>13</sup> C <sub>6</sub> , 99%) CP >90%
DLM-6989	Tryptamine ( $\alpha,\alpha,\beta,\beta$ -D <sub>4</sub> , 97%)
DLM-2919	Tyramine (1,1,2,2-D <sub>4</sub> , 98%)
DLM-8075	Tyramine•HCl (1,1,2,2-D <sub>4</sub> , 98%)
CNLM-234	Urea ( <sup>13</sup> C, 99%; <sup>15</sup> N <sub>2</sub> , 98%+)
CNOLM-8871	Urea ( <sup>13</sup> C, 99%; <sup>15</sup> N <sub>2</sub> , 99%; <sup>18</sup> O, 99%)
COLM-4861	Urea ( <sup>13</sup> C, 99%; <sup>18</sup> O, 98%)
NLM-232	Urea ( <sup>15</sup> N <sub>1</sub> , 98%+)
NLM-233-2	Urea ( <sup>15</sup> N <sub>2</sub> , 2%)
NLM-233-5	Urea ( <sup>15</sup> N <sub>2</sub> , 5%)
NLM-233-10	Urea ( <sup>15</sup> N <sub>2</sub> , 10%)
NLM-233-20	Urea ( <sup>15</sup> N, 20%)
NLM-233	Urea ( <sup>15</sup> N <sub>2</sub> , 98%+)
NOLM-654	Urea ( <sup>15</sup> N <sub>2</sub> , 99%; <sup>18</sup> O, 96-99%)
DLM-1269	Urea (D <sub>4</sub> , 98%)
CLM-311	Urea ( <sup>13</sup> C, 99%)
OLM-655	Urea ( <sup>18</sup> O, 95%)
CLM-3399	Valproic acid (1,2,3,3'- <sup>13</sup> C <sub>4</sub> , 99%)
DLM-4291	Valproic acid (4,4,4',4'-D <sub>4</sub> , 98%)
DLM-8875	Valproic acid (D <sub>15</sub> , 98%)
DLM-7876	Valproic acid (propyl-1,1-D <sub>2</sub> , pentanoic-3,3-D <sub>2</sub> , 98%)
NLM-1698	Xanthine (1,3- <sup>15</sup> N <sub>2</sub> , 98%+) CP 90%
CLM-1295	D-Xylitol (1- <sup>13</sup> C, 99%)
CLM-1214	D-Xylitol (5- <sup>13</sup> C, 99%)
CLM-7608	D-Xylitol (U- <sup>13</sup> C <sub>5</sub> , 99%)

CP: chemical purity

## Ordering Information

The CIL Customer Service Department is open from 8:00 a.m. to 5:30 p.m. Eastern Standard Time. Orders may be placed by fax, email or via our website 24 hours a day.

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