Cambridge Isotope Laboratories, Inc.
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RESEARCH PRODUCTS

Deuterated Reagents

For Pharmaceutical and Synthetic Applications

Cambridge Isotope Laboratories, Inc. (CIL) offers over 15,000 stable isotope-labeled products for your synthetic applications, including the manufacturing of APIs. Many labeling patterns are available for common starting materials. For more than 40 years, CIL has offered:

- Expertise and quality service from initial quote request through delivery
- Flexibility of scale for custom and catalog products from milligram to multikilogram quantities
- cGMP capabilities for manufacturing raw materials and bulk APIs

In recent years, some pharmaceutical companies have begun to investigate deuteration of molecules that may provide advantages over their existing nondeuterated counterparts. In addition, increasing research into the potential medical benefits of new deuterated drugs is also occurring. The potential advantages of deuterated pharmaceuticals include:

Improved metabolic profile. The improved metabolic profile may potentially reduce or eliminate unwanted side effects or undesirable drug interactions.

Improved oral bioavailability. Deuteration in some compounds has reduced the presystemic metabolism that occurs in the digestive track, allowing more of the unmetabolized drug to reach its target.

Increased half-life. Deuterated compounds can have a slower pharmacokinetic effect, extending the absorption and distribution in the body. This may decrease the number of doses a patient may require in certain time period compared to its nondeuterated counterpart.

Catalog No.	Description
DLM-108	Acenaphthene-d_{10} (D, 99%)
DLM-112	Acetaldehyde-d (D, 99%)
DLM-1556	Acetic acid-d (D, 98%)
DLM-12RG*	Acetic acid-d_4 (D, 99%)
DLM-1162	Acetic anhydride-d_6 (D, 98%)
DLM-9RG*	Acetone-d_6 (D, 99.5%)
DLM-247	Acetyl chloride-d_3 (D, 98%)
DLM-322	Acetylene-d_2 (D, 99%)
DLM-855	Acrylic-2,3,3-d_3 acid (D, 98%) + 0.1% 4-methoxyphenol <5% H_2O
DLM-710RG*	Ammonium deuteroxide-d_5 (D, 99%) ~25% sol in D_2O
DLM-862	Aniline-ring-d_5 (D, 98%)
DLM-102	Anthracene-d_{10} (D, 98%)
DLM-610	Benz[*a*]anthracene-d_{12} (D, 98%)
DLM-1RG*	Benzene-d_6 (D, 99%)
DLM-494	Biphenyl-d_{10} (D, 98%)
DLM-1315	Borane-d_3 (D, 98%) 1 molar in THF (+ 0.005M $NaBD_4$)

Catalog No.	Description
DLM-4747	Borane-d_3 methylsulfide complex (D, 98%) contains 10% additional dimethylsulfide
DLM-11076	9-Bromo-10-(naphthalen-1-yl) anthracene-d_{15} (D, 98%)
DLM-11302	9-Bromoanthracene-d_9 (D, 98%)
DLM-398	Bromobenzene-d_5 (D, 99%)
DLM-874	Bromoethane-d_5 (D, 98%)
DLM-181	1,4-Butanediol-2,2,3,3-d_4 (D, 98%)
DLM-1664	*tert*-Butanol-d_{10} (D, 98%)
DLM-10515	*tert*-Butyl acetate-d_9 (D, 99%)
DLM-1116	*tert*-Butyl chloride-d_9 (D, 98%)
DLM-2134	Carbazole-d_8 (D, 98%)
DLM-263	Chlorobenzene-d_5 (D, 99%)
DLM-7RG*	Chloroform-d (D, 99.7%)
DLM-337	Chloromethane-d_3 (D, 99%)
DLM-1560	Cyclohexanone-d_{10} (D, 98%)
DLM-2781	Cyclopentyl bromide-d_9 (D, 98%)
DLM-1003DR	Deuterium (D, 99.96%) <400 ppm HD

*RG = reagent grade

Continued ➤

Chemical purity (CP) is 98% or greater, unless otherwise indicated.
For research use only. Not for use in diagnostic procedures.

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Catalog No.	Description
DLM-408DR	Deuterium (D, 99.8%) D_2, 99.6% + HD, 0.4%
DLM-458DR	Deuterium chloride (D, 99%)
DLM-3DR	Deuterium chloride (D, 99.5%) DCl 35% w/w solution in D_2O
DLM-2	Deuterium chloride (D, 99.5%) DCl 20% w/w solution in D_2O
DLM-4DR	Deuterium oxide (D, 99.9%)
DLM-4DR-99.8	Deuterium oxide (D, 99.8%)
DLM-8048	1,2-Diaminobenzene-d_4 (D, 98%)
DLM-677	Dibenz[*a,h*]anthracene-d_{14} (D, 98%)
DLM-195	1,2-Dibromoethane-d_4 (D, 99%)
DLM-6020	1,3-Dibromopropane (D_6, 98%)
DLM-158	1,2-Dichlorobenzene-d_4 (D, 99%)
DLM-265	Dimethyl-d_6-amine·HCl (D, 98%)
DLM-3903	Dimethyl carbonate-d_6 (D, 99%)
DLM-196	Dimethyl sulfate-d_6 (D, 98%)
DLM-10RG*	Dimethyl sulfoxide-d_6 (D, 99.9%)
DLM-25	*N,N*-Dimethylformamide-d_7 (D, 99.5%)
DLM-1670	*N,N*-Dimethylformamide (formyl-D, 98%)
DLM-16	Ethanol-OD (D, 99%) <6% D_2O
DLM-31	Ethanol-d_6 (D, 99%) anhydrous
DLM-31RG*	Ethanol-d_6 (D, 99%) 5-6% D_2O
DLM-9626	*N*-Ethyl-d_5-aniline (D, 98%)
DLM-9660	*N*-Ethylaniline-d_{10} (D, 98%)
DLM-4304	Ethylbenzene-d_{10} (D, 99%)
DLM-199	Ethylbenzene-d_{10} (D, 98%)
DLM-347	Ethylene-d_4 (D, 98%)
DLM-805	Formaldehyde-d_2 (D, 98%) ~20% w/w in D_2O
DLM-743	Formic acid (formyl-D, 98%) <5% H_2O
DLM-286	Formic acid-d_2 (D, 98%) <5% D_2O
DLM-423	*n*-Heptane-d_{16} (D, 98%)
DLM-272	Iodoethane-d_5 (D, 99%) stabilized with copper wire
DLM-1023	Iodoethane-1,1-d_2 (D, 98%) stabilized with copper wire
DLM-1024	Iodoethane-2,2,2-d_3 (D, 98%) stabilized with copper wire
DLM-44	Isopropanol-d_8 (D, 99%)
DLM-6201	α-Ketoglutaric acid (3,3,4,4-D_4, 98%) CP 90%
DLM-1945	bis(2-Chloroethoxy)-d_8 methane (D, 98%)
DLM-1981	Methanesulfonic acid-d_4 (D, 97%)
DLM-24RG*	Methanol-d_4 (D, 99.5%)

Catalog No.	Description
DLM-15	Methanol-OD (D, 99%)
DLM-651	Methyl formate (formyl-D, 99%)
DLM-362	Methyl iodide-d_3 (D, 99.5%) stabilized with copper wire
DLM-1500DR	Methyl-d_3-amine (D, 98%)
DLM-289	Methyl-d_3-amine·HCl (D, 98%)
DLM-10488	Methyl-d_3 magnesium iodide (D, 99.5%) 2.0 M in di-*N*-butyl ether
DLM-9707	Methyl-d_3 methanesulfonate (D, 98%)
DLM-10186	Methylboronic acid (methyl-D_3, 98%) CP 90%
DLM-23RG*	Methylene chloride-d_2 (D, 99.8%)
DLM-3484	Morpholine-2,2,3,3,5,5,6,6-d_8 (D, 98%)
DLM-365	Naphthalene-d_8 (D, 99%)
DLM-295	2-Nitrophenol-ring-d_4 (D, 98%)
DLM-296	4-Nitrophenol-ring-d_4 (D, 98%)
DLM-619	Octanoic acid-d_{15} (D, 98%)
DLM-300	Paraformaldehyde-d_2 (D, 99%)
DLM-366	Perylene-d_{12} (D, 98%)
DLM-695	Phenol-d_5 (D, 98%)
DLM-370	Phenol-d_6 (D, 98%)
DLM-10858	Phenyl-d_5-boronic acid (D, 98%)
DLM-788	Phthalic anhydride-d_4 (D, 98%)
DLM-9813	Pivalic acid-trimethyl-d_9 (D, 98%)
DLM-3078DR	*N*-Propanol-d_7 (D, 98%)
DLM-39	Pyridine-d_5 100% (D, 99.94%)
DLM-13	Pyridine-d_5 (D, 99.5%)
DLM-9662	Pyrrolidine-2,2,3,3,4,4,5,5-d_8 (D, 98%)
DLM-226	Sodium borodeuteride-d_4 (D, 99%) CP 90-95%
DLM-45DR	Sodium deuteroxide (D, 99.5%) 40% in D_2O
DLM-1361	Sodium formate (D, 98%)
DLM-8206	Sodium 2,2-dimethyl-2-silapentane-5-sulfonate-d_6 (DSS) (D, 98%)
DLM-33DR	Sulfuric acid-d_2 (D, 99%) 96% in D_2O
DLM-36	Tetrahydrofuran-d_8 (D, 99.5%)
DLM-2729	Tetramethylsilane-d_{12} (D, 98%)
DLM-5RG*	Toluene-d_8 (D, 99.5%)
DLM-46RG*	Trifluoroacetic acid-d (D, 99%)

*RG = reagent grade

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Multiple sizes and quantity discounts are available; please inquire.

Research products are distributed and sold worldwide via our extensive network. CIL's distributor listing is available at isotope.com.

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