



Vitamins and Their Metabolites

For Profiling and Quantitation



Vitamins are organic compounds that directly or indirectly participate in organisms' biochemical reactions. These are divided into two classes, based on their solubility in fat (includes A, D, E, and K) and water (includes B and C).

Cambridge Isotope Laboratories, Inc. offers unlabeled and stable isotope-labeled vitamins as neat compounds and/or in solution at specified concentrations. These can be used in a wide range of applications, such as metabolism and pathophysiology explorations, as well as disease biomarker evaluation in pre-clinical and clinical MS studies (e.g., vitamin D deficiency). These standards help facilitate accurate and precise quantification of endogenous metabolites in biological matrices.

Water Soluble

Catalog No.	Description	Concentration	Unit Size
CLM-9548	5-Methyltetrahydrofolic acid (glutamic acid- ¹³ C ₅ , 99%) CP 95%	neat	1 mg, 5 mg
CLM-7321-N	5-Methyltetrahydrofolic acid, calcium salt (glutamic acid- ¹³ C ₅ , 98%) CP 95%	neat	1 mg, 5 mg
DLM-9793-N	Pyridoxal phosphate (mix of 5-,3-isomers) (methyl-D ₃ , 97%)	neat	1 mg
CLM-7667	Vitamin B ₁ hydrochloride (thiamine hydrochloride) (4,5,4-methyl- ¹³ C ₃ , 99%) CP 97%	neat	5 mg
ULM-10004	Vitamin B ₁ hydrochloride (thiamine hydrochloride) (unlabeled)	neat	1 mg, 5 mg, 10 mg
DLM-8741	Vitamin B ₁ pyrophosphate chloride (thiamine pyrophosphate chloride) (pyrimidyl-methyl-D ₃ , 98%)	neat	1 mg
V-053*	Vitamin B ₁ pyrophosphate (thiamine pyrophosphate) (unlabeled)	1 mg/mL in methanol:water (1:1)	1 mL
CNLM-8851	Vitamin B ₂ (riboflavin) (¹³ C ₄ , 99%; ¹⁵ N ₂ , 98%) CP 97%	neat	1 mg, 5 mg, 10 mg
ULM-9123	Vitamin B ₂ (riboflavin) (unlabeled) CP 97%	neat	1 mg, 5 mg, 10 mg
CNLM-10744	Vitamin B ₂ phosphate (riboflavin phosphate) (¹³ C ₄ , 99%; ¹⁵ N ₂ , 98%) CP 90%	neat	1 mg
CLM-9925	Vitamin B ₃ (nicotinamide) (¹³ C ₆ , 99%)	neat	1 mg, 5 mg
DLM-6883	Vitamin B ₃ (nicotinamide) (D ₄ , 98%)	neat	0.1 g, 0.5 g
CNLM-9757	Vitamin B ₃ (nicotinamide) (2,6-carbonyl- ¹³ C ₃ , 99%; ring-1- ¹⁵ N, 98%)	neat	1 mg
CLM-9954	Vitamin B ₃ (nicotinic acid) (¹³ C ₆ , 99%)	neat	1 mg, 5 mg
DLM-4578	Vitamin B ₃ (nicotinic acid) (D ₄ , 98%)	neat	5 mg, 1 g
DLM-2872	Vitamin B ₃ , ethyl ester (nicotinic acid, ethyl ester) (2,4,5,6-D ₄ , 98%)	neat	5 g
CNLM-9512	Vitamin B ₃ (nicotinic acid) (2,6,carboxyl- ¹³ C ₃ , 99%; ¹⁵ N, 98%) CP 97%	neat	1 mg
CNLM-7694	Vitamin B ₅ , calcium salt·H ₂ O (calcium pantothenate·H ₂ O) (β-alanyl- ¹³ C ₃ , 99%; ¹⁵ N, 98%)	neat	10 mg
ULM-10003	Vitamin B ₅ , calcium salt·H ₂ O (calcium pantothenate·H ₂ O) (unlabeled)	neat	1 mg, 5 mg, 10 mg

*Products listed with an asterisk are available only in the US, Switzerland, and Australia.

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Catalog No.	Description	Concentration	Unit Size
DLM-9069	Vitamin B ₆ (pyridoxal) (methyl-D ₃ , 98%)	neat	1 mg, 5 mg, 10 mg
ULM-9118	Vitamin B ₆ (pyridoxal-HCl) (unlabeled)	neat	1 mg, 5 mg, 10 mg
DLM-9119	Vitamin B ₆ (pyridoxamine-2HCl) (methyl-D ₃ , 98%)	neat	1 mg, 5 mg, 10 mg
ULM-9120	Vitamin B ₆ (pyridoxamine-2HCl) (unlabeled)	neat	1 mg, 5 mg, 10 mg
CLM-7563	Vitamin B ₆ (pyridoxine-HCl) (4,5-bis(hydroxymethyl)- ¹³ C ₄ , 99%)	neat	10 mg
DLM-8754	Vitamin B ₆ (pyridoxine-HCl) (5-hydroxymethyl-D ₂ , 98%)	neat	1 mg, 5 mg
DLM-9121	Vitamin B ₆ (pyridoxine-HCl) (methyl-D ₃ , 98%) CP 96%	neat	1 mg, 5 mg, 10 mg
ULM-9122	Vitamin B ₆ (pyridoxine-HCl) (unlabeled) CP 96%	neat	1 mg, 5 mg, 10 mg
DLM-8806	Vitamin B ₇ (biotin) (ring-6,6-D ₂ , 98%) CP 97%	neat	5 mg, 10 mg, 20 mg
DLM-9751	Vitamin B ₇ (biotin) (3',3',4',4'-D ₄ , 98%) CP 95%	neat	1 mg
ULM-9129	Vitamin B ₇ (biotin) (unlabeled)	neat	1 mg, 5 mg
CLM-7861-N	Vitamin B ₉ (folic acid) (glutamic acid- ¹³ C ₅ , 99%) CP 95%	neat	1 mg, 5 mg
CLM-7861	Vitamin B ₉ (folic acid) (glutamic acid- ¹³ C ₅ , 95%) (contains ~10% H ₂ O)	neat	Please inquire
CNLM-9564	Vitamin B ₉ (folic acid) (glutamic acid- ¹³ C ₅ , 99%; ¹⁵ N, 98%) CP 95%	neat	1 mg, 5 mg
CLM-9770-E	Vitamin B ₁₂ (cyanocobalamin) (¹³ C ₇ , 99%) CP 95%	1 µg/mL in methanol	1 mL
ULM-10005-E	Vitamin B ₁₂ (cyanocobalamin) (unlabeled)	1 µg/mL in methanol	1 mL
CLM-3085	Vitamin C (L-ascorbic acid) (1- ¹³ C, 99%)	neat	0.05 g, 0.1 g, 0.25 g, 0.5 g
CLM-10991	Vitamin C (L-ascorbic acid) (1,2- ¹³ C ₂ , 99%)	neat	Please inquire
CLM-7283	Vitamin C (L-ascorbic acid) (U- ¹³ C ₆ , 98%)	neat	0.05 g, 0.1 g
V-038*	Vitamin C (L-ascorbic acid) (unlabeled)	1 mg/mL in acetonitrile:water (1:1)	1 mL

Fat Soluble

Catalog No.	Description	Concentration	Unit Size
CLM-6126	β-Carotene (10,10',11,11'- ¹³ C ₄ , 99%)	neat	Please inquire
CLM-9641	β-Carotene (12,12',13,13',14,14',15,15',20,20'- ¹³ C ₁₀ , 99%) CP 97%	neat	Please inquire
DLM-3829	β-Carotene (19,19,19,19',19',19'-D ₆ , 98%)	neat	Please inquire
DLM-2439	β-Carotene (10,10',19,19,19,19',19',19'-D ₈ , 97%)	neat	Please inquire
ULM-9106-C	1,25-Dihydroxyvitamin D ₂ (unlabeled) CP 95%	100 µg/mL in ethanol	1 mL
ULM-9106-B	1,25-Dihydroxyvitamin D ₂ (unlabeled) CP 95%	50 µg/mL in ethanol	1 mL
ULM-9106	1,25-Dihydroxyvitamin D ₂ (unlabeled) CP 95%	neat	0.1 mg, 1 mg
DLM-9107-C	1,25-Dihydroxyvitamin D ₃ (6,19,19-D ₃ , 97%) CP 95%	100 µg/mL in ethanol	1 mL
DLM-9107-B	1,25-Dihydroxyvitamin D ₃ (6,19,19-D ₃ , 97%) CP 95%	50 µg/mL in ethanol	1 mL
DLM-9107	1,25-Dihydroxyvitamin D ₃ (6,19,19-D ₃ , 97%) CP 95%	neat	1 mg
ULM-9108-C	1,25-Dihydroxyvitamin D ₃ (unlabeled) CP 95%	100 µg/mL in ethanol	1 mL
ULM-9108-B	1,25-Dihydroxyvitamin D ₃ (unlabeled) CP 95%	50 µg/mL in ethanol	1 mL
ULM-9108	1,25-Dihydroxyvitamin D ₃ (unlabeled) CP 95%	neat	0.5 mg, 1 mg
ULM-9109-C	24,25-Dihydroxyvitamin D ₂ (unlabeled)	100 µg/mL in ethanol	1 mL
ULM-9109	24,25-Dihydroxyvitamin D ₂ (unlabeled)	neat	1 mg
DLM-9404-C	24R,25-Dihydroxyvitamin D ₃ (26,26,26,27,27,27-D ₆ , 98%) CP 97%	100 µg/mL in ethanol	1 mL
DLM-9404	24R,25-Dihydroxyvitamin D ₃ (26,26,26,27,27,27-D ₆ , 98%) CP 97%	neat	1 mg
ULM-10610-C	24R,25-Dihydroxyvitamin D ₃ (unlabeled) CP 97%	100 µg/mL in ethanol	1 mL
ULM-10610	24R,25-Dihydroxyvitamin D ₃ (unlabeled) CP 97%	neat	1 mg
ULM-9110-C	3- <i>epi</i> -25-Hydroxyvitamin D ₂ (unlabeled)	100 µg/mL in ethanol	1 mL
ULM-9110-B	3- <i>epi</i> -25-Hydroxyvitamin D ₂ (unlabeled)	50 µg/mL in ethanol	1 mL
ULM-9110	3- <i>epi</i> -25-Hydroxyvitamin D ₂ (unlabeled)	neat	1 mg
DLM-9114-C	25-Hydroxyvitamin D ₂ (6,19,19-D ₃ , 97%)	100 µg/mL in ethanol	1 mL
DLM-9114-B	25-Hydroxyvitamin D ₂ (6,19,19-D ₃ , 97%)	50 µg/mL in ethanol	1 mL
DLM-9114-A	25-Hydroxyvitamin D ₂ (6,19,19-D ₃ , 97%)	5 µg/mL in ethanol	1 mL
DLM-9114	25-Hydroxyvitamin D ₂ (6,19,19-D ₃ , 97%)	neat	1 mg
DLM-10219	25-Hydroxyvitamin D ₂ (26,26,26,27,27,27-D ₆ , 96%) CP 95%	neat	Please inquire
ULM-9115-C	25-Hydroxyvitamin D ₂ (unlabeled)	100 µg/mL in ethanol	1 mL

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Catalog No.	Description	Concentration	Unit Size
ULM-9115-B	25-Hydroxyvitamin D2 (unlabeled)	50 µg/mL in ethanol	1 mL
ULM-9115-A	25-Hydroxyvitamin D2 (unlabeled)	5 µg/mL in ethanol	1 mL
ULM-9115	25-Hydroxyvitamin D2 (unlabeled)	neat	1 mg
DLM-10611-C	25-Hydroxyvitamin D2 sulfate, sodium salt (6,19,19-D ₃ , 97%) CP 97%	100 µg/mL in ethanol	1 mL
ULM-10612-C	25-Hydroxyvitamin D2 sulfate, sodium salt (unlabeled) CP 97%	100 µg/mL in ethanol	1 mL
CLM-10266-C	3- <i>epi</i> -25-Hydroxyvitamin D3 (23,24,25,26,27- ¹³ C ₅ , 99%) CP 96%	100 µg/mL in ethanol	1 mL
DLM-9111-C	3- <i>epi</i> -25-Hydroxyvitamin D3 (6,19,19-D ₃ , 98%)	100 µg/mL in ethanol	1 mL
DLM-9111-B	3- <i>epi</i> -25-Hydroxyvitamin D3 (6,19,19-D ₃ , 98%)	50 µg/mL in ethanol	1 mL
DLM-9111	3- <i>epi</i> -25-Hydroxyvitamin D3 (6,19,19-D ₃ , 98%)	neat	1 mg
DLM-10912	3- <i>epi</i> -25-Hydroxyvitamin D3 (26,26,26,27,27,27-D ₆ , 96%) CP 95%	neat	Please inquire
ULM-9112-C	3- <i>epi</i> -25-Hydroxyvitamin D3 (unlabeled)	100 µg/mL in ethanol	1 mL
ULM-9112-B	3- <i>epi</i> -25-Hydroxyvitamin D3 (unlabeled)	50 µg/mL in ethanol	1 mL
ULM-9112	3- <i>epi</i> -25-Hydroxyvitamin D3 (unlabeled)	neat	1 mg
CLM-10025-C	25-Hydroxyvitamin D3 (23,24,25,26,27- ¹³ C ₅ , 99%) CP 95%	100 µg/mL in ethanol	1 mL
CLM-10025	25-Hydroxyvitamin D3 (23,24,25,26,27- ¹³ C ₅ , 99%) CP 95%	neat	1 mg
DLM-9116-C	25-Hydroxyvitamin D3 (6,19,19-D ₃ , 97%)	100 µg/mL in ethanol	1 mL
DLM-9116-B	25-Hydroxyvitamin D3 (6,19,19-D ₃ , 97%)	50 µg/mL in ethanol	1 mL
DLM-9116-A	25-Hydroxyvitamin D3 (6,19,19-D ₃ , 97%)	5 µg/mL in ethanol	1 mL
DLM-9116	25-Hydroxyvitamin D3 (6,19,19-D ₃ , 97%)	neat	1 mg, 5 mg
ULM-9117-C	25-Hydroxyvitamin D3 (unlabeled)	100 µg/mL in ethanol	1 mL
ULM-9117-B	25-Hydroxyvitamin D3 (unlabeled)	50 µg/mL in ethanol	1 mL
ULM-9117-A	25-Hydroxyvitamin D3 (unlabeled)	5 µg/mL in ethanol	1 mL
ULM-9117	25-Hydroxyvitamin D3 (unlabeled)	neat	5 mg
DLM-7708-C	25-Hydroxyvitamin D3 monohydrate (26,26,26,27,27,27-D ₆ , 98%) CP 97%	100 µg/mL in ethanol	1 mL
DLM-7708-B	25-Hydroxyvitamin D3 monohydrate (26,26,26,27,27,27-D ₆ , 98%) CP 97%	50 µg/mL in ethanol	1 mL
DLM-7708	25-Hydroxyvitamin D3 monohydrate (26,26,26,27,27,27-D ₆ , 98%) CP 97%	neat	1 mg
DLM-10782-C	25-Hydroxyvitamin D3 sulfate, sodium salt (6,19,19-D ₃ , 97%) CP 97%	100 µg/mL in ethanol	Please inquire
DLM-10781-C	25-Hydroxyvitamin D3 sulfate, sodium salt (unlabeled) CP 97%	100 µg/mL in ethanol	Please inquire
CLM-331	Vitamin A (retinoic acid) (10- ¹³ C, 99%)	neat	Please inquire
CLM-328	Vitamin A (retinoic acid) (11- ¹³ C, 98%)	neat	Please inquire
CLM-329	Vitamin A (retinoic acid) (14- ¹³ C, 99%)	neat	Please inquire
CLM-330	Vitamin A (retinoic acid) (15- ¹³ C, 99%)	neat	Please inquire
CLM-4343	Vitamin A (retinoic acid) (10,11,14,15- ¹³ C ₄ , 99%)	neat	Please inquire
DLM-7720	Vitamin A (retinoic acid) (19,19,19,20,20,20-D ₆ , 96%)	neat	1 mg
CLM-10259	Vitamin A (retinol) (12,13,14,20- ¹³ C ₄ , 99%)	neat	Please inquire
DLM-9305	Vitamin A (retinol) (10,19,19,19-D ₄ , 96%)	neat	1 mg, 5 mg
DLM-8113	Vitamin A (retinol) (19,19,19,20,20,20-D ₆ , 97%)	neat	1 mg, 5 mg, 10 mg
DLM-9306	Vitamin A (retinol) (10,14,19,19,19,20,20,20-D ₈ , 90%) CP 96%	neat	Please inquire
CLM-8870	Vitamin A acetate (retinol acetate) (12,13,14,20- ¹³ C ₄ , 99%)	neat	Please inquire
CLM-4831	Vitamin A acetate (retinol acetate) (8,9,10,12,13,14,19,20- ¹³ C ₈ , 99%)	neat	Please inquire
CLM-7277	Vitamin A acetate (retinol acetate) (8,9,10,11,12,13,14,15,19,20- ¹³ C ₁₀ , 99%)	neat	Please inquire
DLM-2244	Vitamin A acetate (retinol acetate) (10,19,19,19-D ₄ , 96%) (3-4% <i>cis</i>)	neat	Please inquire
DLM-3828	Vitamin A acetate (retinol acetate) (19,19,19,20,20,20-D ₆ , 96%) (3-4% <i>cis</i>)	neat	Please inquire
DLM-4203	Vitamin A acetate (retinol acetate) (10,14,19,19,19,20,20,20-D ₈ , 90%) (3-4% <i>cis</i>)	neat	Please inquire
CLM-320	Vitamin A aldehyde (retinal) (10- ¹³ C, 99%)	neat	Please inquire
CLM-325	Vitamin A aldehyde (retinal) (11- ¹³ C, 99%)	neat	Please inquire
CLM-326	Vitamin A aldehyde (retinal) (14- ¹³ C, 99%)	neat	Please inquire
CLM-327	Vitamin A aldehyde (retinal) (15- ¹³ C, 98%)	neat	Please inquire
CLM-10772	Vitamin A aldehyde (retinal) (12,13,14,20- ¹³ C ₄ , 96%)	neat	Please inquire
DLM-7719	Vitamin A aldehyde (retinal) (19,19,19,20,20,20-D ₆ , 96%)	neat	Please inquire

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Catalog No.	Description	Concentration	Unit Size
CLM-9395	Vitamin A palmitate (retinyl palmitate) (12,13,20- ¹³ C ₃ , 98%) (all <i>trans</i> , <4% <i>cis</i> , 50 ppm butylated hydroxytoluene – “BHT”)	neat	Please inquire
CLM-10838	Vitamin A palmitate (retinyl palmitate) (8,9,10,11,12,13,14,15,19,20- ¹³ C ₁₀ , 99%) (all <i>trans</i> , <4% <i>cis</i> , 50 ppm butylated hydroxytoluene – “BHT”)	neat	Please inquire
DLM-4902	Vitamin A palmitate (retinyl palmitate) (10,19,19,19-D ₄ , 96%) (all <i>trans</i> , <4% <i>cis</i> , 50 ppm butylated hydroxytoluene – “BHT”)	neat	1 mg, 5 mg
DLM-9309	Vitamin A palmitate (retinyl palmitate) (19,19,19,20,20,20-D ₆ , 97%) (all <i>trans</i> , <4% <i>cis</i> , 50 ppm butylated hydroxytoluene – “BHT”)	neat	Please inquire
DLM-8985-D	Vitamin D ₂ (ergocalciferol) (6,19,19-D ₃ , 97%)	1000 µg/mL in ethanol	1 mL
DLM-8985-C	Vitamin D ₂ (ergocalciferol) (6,19,19-D ₃ , 97%)	100 µg/mL in ethanol	1 mL
DLM-8985	Vitamin D ₂ (ergocalciferol) (6,19,19-D ₃ , 97%)	neat	1 mg
ULM-9124-D	Vitamin D ₂ (ergocalciferol) (unlabeled)	1000 µg/mL in ethanol	1 mL
ULM-9124-C	Vitamin D ₂ (ergocalciferol) (unlabeled)	100 µg/mL in ethanol	1 mL
ULM-9124	Vitamin D ₂ (ergocalciferol) (unlabeled)	neat	1 mg, 5 mg, 10 mg
DLM-10478-C	Vitamin D ₂ sulfate, sodium salt (ergocalciferol sulfate) (6,19,19-D ₃ , 98%) CP 97%	100 µg/mL in ethanol	1 mL
ULM-10477-C	Vitamin D ₂ sulfate, sodium salt (ergocalciferol sulfate) (unlabeled) CP 97%	100 µg/mL in ethanol	1 mL
CLM-7850	Vitamin D ₃ (cholecalciferol) (23,24- ¹³ C ₂ , 99%) CP 90%	neat	Please inquire
CLM-10470-D	Vitamin D ₃ (cholecalciferol) (23,24,25,26,26- ¹³ C ₅ , 98%) CP 97%	1000 µg/mL in ethanol	1 mL
CLM-10470-C	Vitamin D ₃ (cholecalciferol) (23,24,25,26,26- ¹³ C ₅ , 98%) CP 97%	100 µg/mL in ethanol	1 mL
DLM-8853-D	Vitamin D ₃ (cholecalciferol) (6,19,19-D ₃ , 97%) CP 97%	1000 µg/mL in ethanol	1 mL
DLM-8853-C	Vitamin D ₃ (cholecalciferol) (6,19,19-D ₃ , 97%) CP 97%	100 µg/mL in ethanol	1 mL
DLM-10749-D	Vitamin D ₃ (cholecalciferol) (26,26,26,27,27-D ₆ , 98%) CP 95%	1 mg/mL in ethanol	1 mL
DLM-10749-C	Vitamin D ₃ (cholecalciferol) (26,26,26,27,27-D ₆ , 98%) CP 95%	100 µg/mL in ethanol	1 mL
ULM-9125-D	Vitamin D ₃ (cholecalciferol) (unlabeled)	1000 µg/mL in ethanol	1 mL
ULM-9125-C	Vitamin D ₃ (cholecalciferol) (unlabeled)	100 µg/mL in ethanol	1 mL
ULM-9125	Vitamin D ₃ (cholecalciferol) (unlabeled)	neat	1 mg, 5 mg, 10 mg
DLM-10475-C	Vitamin D ₃ sulfate, sodium salt (cholecalciferol sulfate) (6,19,19-D ₃ , 98%) CP 97%	100 µg/mL in ethanol	1 mL
ULM-10474-C	Vitamin D ₃ sulfate, sodium salt (cholecalciferol sulfate) (unlabeled) CP 97%	100 µg/mL in ethanol	1 mL
CLM-10274	Vitamin E (DL- α -tocopherol) (trimethylphenyl- ¹³ C ₃ , 99%) CP 96%	neat	1 mg
CLM-10273	Vitamin E (α -tocopherol) (trimethyl- ¹³ C ₃ phenyl, 99%) CP 96%	neat	1 mg
CLM-10275	Vitamin E (α -tocopherol) (phenyl- ¹³ C ₆ , 99%) CP 96%	neat	1 mg
CLM-10276	Vitamin E (α -tocopherol) (trimethylphenyl- ¹³ C ₉ , 99%) CP 96%	neat	1 mg
DLM-9126	Vitamin E (α -tocopherol) (5-methyl-D ₃ , 7-methyl-D ₃ , 98%)	neat	2 mg, 5 mg, 10 mg
CDLM-11053-1.2	Vitamin E (α -tocopherol) (dimethyl- ¹³ C ₂ , 99%; dimethyl-D ₆ , 98%)	100 µg/mL in methanol	1.2 mL
ULM-9127-1.2	Vitamin E (α -tocopherol) (unlabeled)	100 µg/mL in methanol	1.2 mL
ULM-9127	Vitamin E (α -tocopherol) (unlabeled) CP 96%	neat	1 mg, 5 mg, 10 mg
DLM-8847	Vitamin E acetate (α -tocopherol acetate) (acetyl-D ₃ , 98%)	neat	Please inquire
CDLM-11054-1.2	Vitamin E acetate (α -tocopherol acetate) (dimethyl- ¹³ C ₂ , acetyl- ¹³ C ₂ , 99%; dimethyl-D ₆ , 98%)	100 µg/mL in methanol	1.2 mL
ULM-11055-1.2	Vitamin E acetate (α -tocopherol acetate) (unlabeled)	100 µg/mL in methanol	1.2 mL
CLM-9566	Vitamin K ₁ (phylloquinone) (4 α ,5,6,7,8,8 α - ¹³ C ₆ , 99%)	neat	1 mg
DLM-7702	Vitamin K ₁ (phylloquinone) (ring-D ₄ , 98%)	neat	1 mg
DLM-9130	Vitamin K ₁ (phylloquinone) (D ₇ , 99%) CP 97%	neat	1 mg, 5 mg, 10 mg
ULM-9131	Vitamin K ₁ (phylloquinone) (unlabeled) CP 97%	neat	1 mg, 5 mg, 10 mg
CLM-10376	Vitamin K ₂ (menaquinone MK-4) (4',5,6,7,8,8'- ¹³ C ₆ , 99%) CP 95%	neat	1 mg
DLM-10379	Vitamin K ₂ (menaquinone MK-4) (5,6,7,8-D ₄ , 2-methyl-D ₃ , 98%) CP 95%	neat	1 mg
CLM-10377	Vitamin K ₂ (menaquinone MK-7) (4',5,6,7,8,8'- ¹³ C ₆ , 99%) CP 95%	neat	1 mg
DLM-10380	Vitamin K ₂ (menaquinone MK-7) (5,6,7,8-D ₄ , 2-methyl-D ₃ , 98%) CP 95%	neat	1 mg

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Catalog No.	Description	Concentration	Unit Size
CLM-10378	Vitamin K ₂ (menaquinone MK-9) (4',5,6,7,8,8'- ¹³ C ₆ , 99%) CP 95%	neat	1 mg
DLM-10381	Vitamin K ₂ (menaquinone MK-9) (5,6,7,8-D ₄ , 2-methyl-D ₃ , 98%) CP 95%	neat	1 mg
DLM-10382	Vitamin K ₂ 2,3-epoxide (menaquinone-4 2,3-epoxide) (5,6,7,8-D ₄ , 2-methyl-D ₃ , 98%) CP 95%	neat	1 mg
ULM-10383	Vitamin K ₂ 2,3-epoxide (menaquinone-4 2,3-epoxide) (unlabeled) CP 95%	neat	1 mg
DLM-9132	Vitamin K ₃ (menadione) (D ₈ , 98%) CP 97%	neat	10 mg, 0.05 g
ULM-9133	Vitamin K ₃ (menadione) (unlabeled) CP 97%	neat	1 mg, 5 mg, 10 mg

Example References

Kazuki, T.; Ayuko, M.; Yoshinori, I.; et al. **2020**. Comparison of two reducing agents dithiothreitol and tris(3-hydroxypropyl)phosphine for *in vitro* kinetic assay of vitamin K epoxide reductase. *Veterinary and Animal Science*, *9*, 100095.

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Research Use of Products

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Please note that if you choose to purchase at a later date, some of the information listed below may not be available. Also, the EDP may not be available for all lots. In some cases, only a partial EDP may be available. Please confirm availability and content prior to order.

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- Product physical properties: melting point, pH, optical rotation (mix of literature or measured values).
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- Data used to confirm structure and chemical purity.
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- Impurities: available data on impurities detected and identified together with the method of detection and the cutoff applied.
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