



SILAC Reagents and Sets

Stable Isotope Labeling by Amino Acids in Cell Culture

培養細胞内のアミノ酸を使用した安定同位体標識（SILAC法）は、複合タンパク質サンプルの発現量を比較定量するための効果的な方法です。SILACの手法では、*in vivo*タンパク質に代謝的に導入した「重い（heavy）」 ^{13}C または ^{15}N で標識したアミノ酸を使用し、タンパク質の同定、特徴解析および定量を質量分析法（MS）によって包括的に分析します。

Amino Acids

L-Arginine (L-Arg)

Catalog No.	Description	Shift from Unlabeled
CLM-2265-H*	L-Arginine-HCl ($^{13}\text{C}_6$, 99%)	+6 Da
CNLM-539-H*	L-Arginine-HCl ($^{13}\text{C}_6$, 99%; $^{15}\text{N}_4$, 99%)	+10 Da
ULM-8347	L-Arginine-HCl (unlabeled)	N/A

L-Lysine (L-Lys)

Catalog No.	Description	Shift from Unlabeled
CLM-2247-H*	L-Lysine-2HCl ($^{13}\text{C}_6$, 99%)	+6 Da
DLM-2640	L-Lysine-2HCl (4,4,5,5- D_4 , 96-98%)	+4 Da
DLM-2641	L-Lysine-2HCl (3,3,4,4,5,5,6,6- D_8 , 98%)	+8 Da
CNLM-291-H*	L-Lysine-2HCl ($^{13}\text{C}_6$, 99%; $^{15}\text{N}_2$, 99%)	+8 Da
ULM-8766	L-Lysine-2HCl (unlabeled)	N/A

L-Leucine (L-Leu)

Catalog No.	Description	Shift from Unlabeled
CLM-2262-H*	L-Leucine ($^{13}\text{C}_6$, 99%)	+6 Da
DLM-1259	L-Leucine (5,5,5- D_3 , 99%)	+3 Da
CNLM-281-H*	L-Leucine ($^{13}\text{C}_6$, 99%; ^{15}N , 99%)	+7 Da
ULM-8203	L-Leucine (unlabeled)	N/A

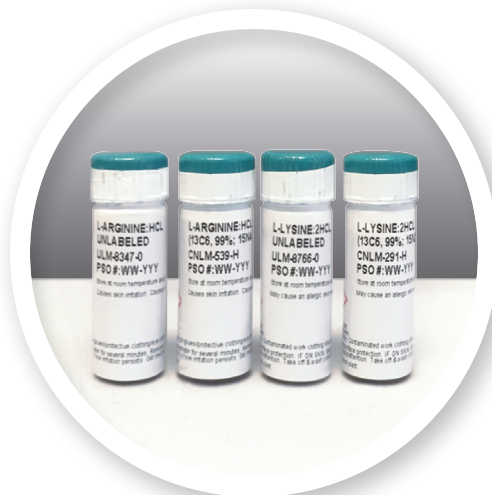
L-Valine (L-Val)

Catalog No.	Description	Shift from Unlabeled
CLM-2249-H*	L-Valine ($^{13}\text{C}_5$, 99%)	+5 Da
DLM-488	L-Valine (D_8 , 98%)	+8 Da
ULM-8202	L-Valine (unlabeled)	N/A

*H denotes highly enriched amino acid (i.e., 99%).

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

Cambridge Isotope Laboratories, Inc.



Amino Acid Bundling Sets New!

SILAC 2-Plex (2-Plex SILAC Amino Acid Standards)[†]

Type	Abbreviated Compounds (Catalog Numbers)
Light (L)	Unlabeled L-Arg (ULM-8347) and Unlabeled L-Lys (ULM-8766)
Heavy (H)	$^{13}\text{C}_6$, $^{15}\text{N}_4$ L-Arg (CNLM-539-H) and $^{13}\text{C}_6$, $^{15}\text{N}_2$ L-Lys (CNLM-291-H)

SILAC 3-Plex (3-Plex SILAC Amino Acid Standards)[†]

Type	Abbreviated Compounds (Catalog Numbers)
Light (L)	Unlabeled L-Arg (ULM-8347) and Unlabeled L-Lys (ULM-8766)
Medium (M)	$^{13}\text{C}_6$ L-Arg (CLM-2265-H) and D_4 L-Lys (DLM-2640)
Heavy (H)	$^{13}\text{C}_6$, $^{15}\text{N}_4$ L-Arg (CNLM-539-H) and $^{13}\text{C}_6$, $^{15}\text{N}_2$ L-Lys (CNLM-291-H)

[†]Each amino acid in the 2-plex and 3-plex standard sets is supplied in 0.1 g units.

Other Products of Interest

Methionine (Met) Surrogates

L-Azidohomoalanine-HCl (light, AHA; heavy, hAHA) and L-azidonorleucine-HCl (ANL) can be used to evaluate the synthesis and turnover of newly synthesized proteins *in vivo* through targeted or untargeted MS analysis (e.g., Yates JR et al. JPR 2015). CIL is pleased to offer AHA, hAHA, and ANL for use in SILAC applications. Please inquire for pricing.

Catalog No.	Description
CNLM-9461	L-Azidohomoalanine-HCl (1,2,3,4- $^{13}\text{C}_4$, 99%; 2,4- $^{15}\text{N}_2$, 98%)
ULM-9460	L-Azidohomoalanine-HCl (unlabeled)
ULM-10989	L-Azidonorleucine-HCl (unlabeled) CP 97%

Chemical purity (CP) is 98% or greater, unless otherwise specified.

【発売元】

大塚製薬株式会社
東京都千代田区神田司町2-9

【資料請求先】

診断事業部 CIL試薬課
e-mail: isotope@otsuka.jp

〒771-0182
徳島県徳島市川内町平石夷野224-18
TEL (088) 665-7367 FAX (088) 665-8344

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Stable Isotope Labeling by Amino Acids in Cell Culture

2-PLEX セット

製品コード	製品名	詳細	容量	希望小売価格
SILAC-2PLEX	2-PLEX SILAC AMINO ACID STANDARDS	0.1G each	EA	¥322,600

Light (L) Unlabeled L-Arg (ULM-8347) and Unlabeled L-Lys (ULM-8766)

Heavy (H) 13C6, 15N4 L-Arg (CNLM-539-H) and 13C6, 15N2 L-Lys (CNLM-291-H)

2-PLEX セットに含まれる化合物の単品価格

製品コード	製品名	詳細	容量	希望小売価格
ULM-8347-0.1	L-ARGININE:HCL	UNLABELED	0.1 G	¥30,400
ULM-8766-0.1	L-LYSINE:2HCL	UNLABELED	0.1 G	¥30,400
CNLM-539-H-0.1	L-ARGININE:HCL	(13C6, 99%; 15N4, 99%)	0.1 G	¥182,000
CNLM-291-H-0.1	L-LYSINE:2HCL	(13C6, 99%; 15N2, 99%)	0.1 G	¥170,800

3-PLEX セット

製品コード	製品名	詳細	容量	希望小売価格
SILAC-3PLEX	3-PLEX SILAC AMINO ACID STANDARDS	0.1G each	EA	¥580,800

Light (L) Unlabeled L-Arg (ULM-8347) and Unlabeled L-Lys (ULM-8766)

Medium (M) 13C6 L-Arg (CLM-2265-H) and D4 L-Lys (DLM-2640)

Heavy (H) 13C6, 15N4 L-Arg (CNLM-539-H) and 13C6, 15N2 L-Lys (CNLM-291-H)

3-PLEX セットに含まれる化合物の単品価格

製品コード	製品名	詳細	容量	希望小売価格
ULM-8347-0.1	L-ARGININE:HCL	UNLABELED	0.1 G	¥30,400
ULM-8766-0.1	L-LYSINE:2HCL	UNLABELED	0.1 G	¥30,400
CLM-2265-H-0.1	L-ARGININE:HCL	(13C6, 99%)	0.1 G	¥247,800
DLM-2640-0.1	L-LYSINE:2HCL	(4,4,5,5-D4, 96-98%)	0.1 G	¥106,000
CNLM-539-H-0.1	L-ARGININE:HCL	(13C6, 99%; 15N4, 99%)	0.1 G	¥182,000
CNLM-291-H-0.1	L-LYSINE:2HCL	(13C6, 99%; 15N2, 99%)	0.1 G	¥170,800

アルギニン、リジン、ロイシン、バリン 各種標識・サイズ

製品コード	製品名	詳細	容量	希望小売価格
CLM-2265-H-0.05	L-ARGININE:HCL	(13C6, 99%)	0.05 G	¥157,600
CLM-2265-H-0.1	L-ARGININE:HCL	(13C6, 99%)	0.1 G	¥247,800
CLM-2265-H-0.25	L-ARGININE:HCL	(13C6, 99%)	0.25 G	¥415,400
CLM-2265-H-0.5	L-ARGININE:HCL	(13C6, 99%)	0.5 G	¥630,000
CLM-2265-H-1	L-ARGININE:HCL	(13C6, 99%)	1 G	¥897,800
CNLM-539-H-0.05	L-ARGININE:HCL	(13C6, 99%; 15N4, 99%)	0.05 G	¥113,600
CNLM-539-H-0.1	L-ARGININE:HCL	(13C6, 99%; 15N4, 99%)	0.1 G	¥182,000
CNLM-539-H-0.25	L-ARGININE:HCL	(13C6, 99%; 15N4, 99%)	0.25 G	¥312,800
CNLM-539-H-0.5	L-ARGININE:HCL	(13C6, 99%; 15N4, 99%)	0.5 G	¥557,600
CNLM-539-H-1	L-ARGININE:HCL	(13C6, 99%; 15N4, 99%)	1 G	¥697,000
ULM-8347-0.05	L-ARGININE:HCL	UNLABELED	0.05 G	¥16,200
ULM-8347-0.1	L-ARGININE:HCL	UNLABELED	0.1 G	¥30,400
CLM-2262-H-0.05	L-LEUCINE	(13C6, 99%)	0.05 G	¥291,800
CLM-2262-H-0.1	L-LEUCINE	(13C6, 99%)	0.1 G	¥406,600
CLM-2262-H-0.25	L-LEUCINE	(13C6, 99%)	0.25 G	¥710,000
CNLM-281-H-0.05	L-LEUCINE	(13C6, 99%; 15N, 99%)	0.05 G	¥238,600
CNLM-281-H-0.1	L-LEUCINE	(13C6, 99%; 15N, 99%)	0.1 G	¥319,600
CNLM-281-H-0.25	L-LEUCINE	(13C6, 99%; 15N, 99%)	0.25 G	¥523,200
DLM-1259-1	L-LEUCINE	(5,5,5-D3, 99%)	1 G	¥192,400
DLM-1259-5	L-LEUCINE	(5,5,5-D3, 99%)	5 G	¥900,400
ULM-8203-PK	L-LEUCINE	UNLABELED		お問い合わせ
CLM-2247-H-0.05	L-LYSINE:2HCL	(13C6, 99%)	0.05 G	¥142,400
CLM-2247-H-0.1	L-LYSINE:2HCL	(13C6, 99%)	0.1 G	¥217,400
CLM-2247-H-0.25	L-LYSINE:2HCL	(13C6, 99%)	0.25 G	¥360,400
CLM-2247-H-0.5	L-LYSINE:2HCL	(13C6, 99%)	0.5 G	¥545,400
CLM-2247-H-1	L-LYSINE:2HCL	(13C6, 99%)	1 G	¥801,000
CNLM-291-H-0.05	L-LYSINE:2HCL	(13C6, 99%; 15N2, 99%)	0.05 G	¥114,000
CNLM-291-H-0.1	L-LYSINE:2HCL	(13C6, 99%; 15N2, 99%)	0.1 G	¥170,800
CNLM-291-H-0.1MG	L-LYSINE:2HCL	(13C6, 99%; 15N2, 99%)	0.1 MG	¥42,200
CNLM-291-H-0.25	L-LYSINE:2HCL	(13C6, 99%; 15N2, 99%)	0.25 G	¥317,600
CNLM-291-H-0.5	L-LYSINE:2HCL	(13C6, 99%; 15N2, 99%)	0.5 G	¥475,400
CNLM-291-H-1	L-LYSINE:2HCL	(13C6, 99%; 15N2, 99%)	1 G	¥685,000
DLM-2640-0.1	L-LYSINE:2HCL	(4,4,5,5-D4, 96-98%)	0.1 G	¥106,000
DLM-2640-0.25	L-LYSINE:2HCL	(4,4,5,5-D4, 96-98%)	0.25 G	¥210,600
DLM-2640-0.5	L-LYSINE:2HCL	(4,4,5,5-D4, 96-98%)	0.5 G	¥328,800
DLM-2640-1	L-LYSINE:2HCL	(4,4,5,5-D4, 96-98%)	1 G	¥509,000
ULM-8766-0.05	L-LYSINE:2HCL	UNLABELED	0.05 G	¥16,200
ULM-8766-0.1	L-LYSINE:2HCL	UNLABELED	0.1 G	¥30,400
ULM-8766-0.1MG	L-LYSINE:2HCL	UNLABELED	0.1 MG	¥36,400
CLM-2249-H-0.1MG	L-VALINE	(13C5, 99%)	0.1 MG	¥42,200
CLM-2249-H-0.25	L-VALINE	(13C5, 99%)	0.25 G	¥554,800
CLM-2249-H-0.5	L-VALINE	(13C5, 99%)	0.5 G	¥917,800
CLM-2249-H-1	L-VALINE	(13C5, 99%)	1 G	¥1,470,400
DLM-488-0.25	L-VALINE	(D8, 98%)	0.25 G	¥143,800
DLM-488-0.5	L-VALINE	(D8, 98%)	0.5 G	¥242,800
ULM-8202-0.1MG	L-VALINE	UNLABELED	0.1 MG	¥36,400