



To help advance research in MS 'omics and MS/MS screening, Cambridge Isotope Laboratories, Inc. (CIL) is pleased to offer the largest variety of stable isotope-labeled sets, mixtures, and kits. The mixes are formulated neat and/or as solutions and are readily available for immediate use. The kits include a user manual together with the packaged mix(es). The manual outlines general procedures and processing examples for user reference, as well as troubleshooting notes and analysis results. Please see isotope.com for product details, pricing, and to inquire about customized mixes.

#### **Benefits**

- easy to use
- offers flexibility
- saves time
- enhances data quality
- improves reproducibility
- renders confidence

#### **Features Overview**

- mixes supplied in neat and/or solution form
- preferentially <sup>13</sup>C- and/or <sup>15</sup>N-enriched
- site-specific or uniform labeling
- established specification guidelines
- procedural guides in kit manuals
- broad-spanning applications (from QC to quantification)

### **Mixtures and Sets**

| Catalog No.      | Description   | No. of Metabolites  | Unit Size                                 |
|------------------|---|---------------------|---|
| Amino Acids      |   |                     |   |
| NSK-A            | Amino Acid Standard Mix Set A   | 12                  | 1 vial, 10 vials                          |
| NSK-A1           | Amino Acid Standard Mix Set A1  | 12                  | 1 vial, 10 vials                          |
| NSK-A-TS         | Amino Acid Tuning Standard Mix Set A  | 5                   | 1 vial                                    |
| NSK-AB           | Standard Mix Sets A and B   | 12 (in A), 8 (in B) | 2 × 10 vials                              |
| MSK-A2           | Metabolomics Amino Acid Mix   | 17                  | 1.2 mL                                    |
| MSK-CAA          | Canonical Amino Acid Mix  | 20                  | 1 vial                                    |
| MSK-NCAA         | Noncanonical Amino Acid Mix   | 7                   | 1 vial                                    |
| Bile Acids       |   |                     |   |
| MSK-BA1          | Bile Acid Standard Mix 1 – Unconjugated   | 6                   | 1 vial                                    |
| MSK-BA2          | Bile Acid Standard Mix 2 – Conjugated   | 10                  | 1 vial                                    |
| Carnitine/Acylo  | arnitines   |                     |   |
| NSK-B            | Carnitine/Acylcarnitine Standard Mix Set B  | 8                   | 1 vial, 10 vials                          |
| NSK-B-G1         | Carnitine/Acylcarnitine Standard Mix Supplement to NSK-B  | 5                   | 1 vial, 10 vials                          |
| NSK-AB           | Standard Mix Sets A and B   | 12 (in A), 8 (in B) | 2 × 10 vials                              |
| Fatty Acids/Lipi | ids   |                     |   |
| CLM-8455         | Fatty Acid Mix (U-13C, 98%)   | 5-10                | 0.25 g, 1 g                               |
| DLM-8572         | Fatty Acid Mix (U-D, 96-98%)  | 5-10                | Please inquire                            |
| CDLM-8376        | Fatty Acid Mix (U- <sup>13</sup> C, 98%; U-D, 97%)  | 5-10                | 0.25 g, 1 g                               |
| CLM-8381         | Fatty Acid, Methyl Ester Mix (U-13C, 98%) (unlabeled terminal ester) CP 95%                                 | 5-10                | 0.25 g, 1 g                               |
| DLM-2497         | Fatty Acid, Methyl Ester Mix (U-D, 96-98%)  | 5-10                | Please inquire                            |
| DLM-8375         | Triglyceride Mix (U-D, 97%)   | 5-10                | 0.25 g, 1 g                               |
| Nucleic Acids    |   |                     |   |
| CNLM-7871-SL     | Set of 4 2'-Deoxyribonucleoside 5'-Monophosphates (U-13C, 98%; U-15N, 98%) (Li salts, in solution) CP 90%   | 4                   | 10 mg                                     |
| NLM-7512-SL      | Set of 4 2'-Deoxyribonucleoside 5'-Triphosphates (U-15N, 98%) (Li salts, in solution) CP 90%                | 4                   | 10 mg, 50 mg                              |
| DLM-7511-SL      | Set of 4 2'-Deoxyribonucleoside 5'-Triphosphates (U-D, 98%) (Li salts, in solution) CP 90%                  | 4                   | 10 mg, 50 mg                              |
| CNLM-7513-SL     | Set of 4 2'-Deoxyribonucleoside 5'-Triphosphates (U-13C, 98%; U-15N, 98%)<br>(Li salts, in solution) CP 90% | 4                   | 10 mg, 50 mg                              |
| NLM-7519-SL      | Set of 4 Ribonucleoside 5'-Triphosphates (U-15N, 98%) (Li salts, in solution) CP 90%                        | 4                   | 10 mg, 50 mg                              |
| DLM-7518-SL      | Set of 4 Ribonucleoside 5'-Triphosphates (U-D, 98%) (Li salts, in solution) CP 90%                          | 4                   | 10 mg, 50 mg                              |
| CNLM-7503-SL     | Set of 4 Ribonucleoside 5'-Triphosphates (U-13C, 98%; U-15N, 98%) (Li salts, in solution) CP 90%            | 4                   | 10 mg, 50 mg                              |
| NLM-7519-CA      | Set of 4 Ribonucleoside 5'-Triphosphates (U-15N; 98%) (NH <sub>4</sub> salts, in solution) CP 90%           | 4                   | 4 × 100 μmol                              |
| DLM-7518-CA      | Set of 4 Ribonucleoside 5'-Triphosphates (U-D, 98%) (NH <sub>4</sub> salts, in solution) CP 90%             | 4                   | 4 × 20 μmol, 4 × 50<br>μmol, 4 × 100 μmo  |
| CNLM-7503-CA     | Set of 4 Ribonucleoside 5'-Triphosphates (U-13C, U-15N; 98-99%) (NH <sub>4</sub> salts, in solution) CP 90% | 4                   | 4 × 20 μmol, 4 × 50<br>μmol, 4 × 100 μmol |

| Catalog No.   | Description  | No. of Metabolites | Unit Size        |
|---------------|--|--------------------|------------------|
| Organic Acids |  |                    |                  |
| MSK-OA        | Organic Acid Mix   | 33                 | 1 vial           |
| MSK-OA1       | Keto Acid Mix  | 5                  | 1 vial           |
| MSK-OA2       | Diacid Mix   | 8                  | 1 vial           |
| MSK-OA3       | Monoacid Mix   | 3                  | 1 vial           |
| MSK-OA4       | Hydroxy Acid Mix   | 5                  | 1 vial           |
| MSK-OA5       | Aromatic Acid Mix  | 5                  | 1 vial           |
| MSK-OA6       | Other Acid Mix   | 2                  | 1 vial           |
| MSK-OA7       | Other Organic Acid Mix                                       | 5                  | 1 vial           |
| Other         |  |                    |                  |
| NSK-LPC       | Lysophosphatidylcholine Mix                                  | 4                  | 1 vial           |
| NSK-NI        | Acid Sphingomyelinase Substrate and Internal Standard Mix    | 1 (S + IS)         | 1 vial           |
| NSK-KR        | Galactocerebrosidase Substrate and Internal Standard Mix     | 1 (S + IS)         | 1 vial           |
| NSK-FA        | lpha-Galactosidase Substrate and Internal Standard Mix       | 1 (S + IS)         | 1 vial           |
| NSK-GA        | Glucocerebrosidase Substrate and Internal Standard Mix       | 1 (S + IS)         | 1 vial           |
| NSK-MP        | lpha-L-Iduronidase Substrate and Internal Standard Mix       | 1 (S + IS)         | 1 vial           |
| NSK-PO        | Acid $lpha$ -Glucosidase Substrate and Internal Standard Mix | 1 (S + IS)         | 1 vial           |
| MSK-TCA1      | TCA Cycle Standard Mix 1                                     | 8                  | 1 vial           |
| MSK-TCA2      | TCA Cycle Standard Mix 2                                     | 5                  | 1 vial           |
| MSK-TCA       | TCA Cycle Standard Mix Set 1 and 2                           | 8 (in 1), 5 (in 2) | 2 × 1 vials      |
| Steroids      |  |                    |                  |
| NSK-S         | Steroid Mix Set S  | 5                  | 1 vial, 10 vials |
| NSK-S-40X     | Steroid Mix Set S (40X)                                      | 5                  | 1 vial, 10 vials |
| NSK-S-EXP     | Expanded Steroid Mix Set S                                   | 9                  | 1 vial, 10 vials |

Note: Companion unlabeled standard mixes and kits may be available; please inquire.

# Kits

## Metabolomic Kits

| Catalog No.             | Description  | No. of Metabolites per Mix |  |
|-------------------------|--|----------------------------|--|
| Platform and Workflow   | Quality Control (QC) Kits                          |                            |  |
| MSK-QC-KIT              | Metabolomics QC Kit                                | 5 (vial 1), 9 (vial 2)     |  |
| MSK-QReSS-KIT           | Metabolomics QReSS™ Kit                            | 12 (vial 1), 6 (vial 2)    |  |
| Qualification and Quant | tification Kits                                    |                            |  |
| MSK-CRED-DD-KIT         | Credentialed E. coli Cell Extract Kit (dried down) | 100s                       |  |
| MSK-CRED-KIT            | Credentialed E. coli Cell Extract Kit (solution)   | 100s                       |  |
| IROA-200-50             | IROA 200 Kit for Bacterial Metabolic Profiling     | 100s                       |  |
| IROA-300-250            | IROA 300 Kit for Mammalian Metabolic Profiling     | 100s                       |  |
| IROA-PHENO-95-300       | IROA 300 Kit for Phenotypic Metabolic Profiling    | 100s                       |  |
| IROA-FLUX-05-300        | IROA 300 Kit for Fluxomic Metabolic Profiling      | 100s                       |  |
| ISO1                    | Metabolite Yeast Extract Kit (U-13C, 98%)          | 100s                       |  |

**Note:** Companion unlabeled standard mixes and kits may be available; please inquire.

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# Glycomic Kit

| Catalog No.       | Description                 | Unit Size |
|-------------------|-----------------------------|-----------|
| Qualification and | Quantification Kit          |           |
| GTK-1000          | INLIGHT® Glycan Tagging Kit | 1 kit     |

Continued >

#### **Proteomic Kits**

| Catalog No.   | Description   | No. of Peptides per Mix | Unit Size                 | Optimized Instrument  |
|---------------|---|-------------------------|---------------------------|---|
| Platform and  | Workflow Quality Control (QC) Kits                    |                         |                           |   |
| LCMSP-QC      | PeptiQuant Plus Human Plasma Daily QC Kit             | 35                      | 10, 20, or 50 injections  | <ul> <li>6490/6495 QqQ</li> <li>QTRAP® 6500</li> <li>Q Exactive™ Plus</li> </ul>              |
| WFPK          | PeptiQuant Plus Human Plasma Workflow QC Kit          | 35                      | 1 or 2 runs               | <ul><li>6490/6495 QqQ</li><li>Q Exactive Plus</li><li>QTRAP 6500</li></ul>                    |
| Biomarker Ass | sessment Kits (BAKs)                                  |                         |                           |   |
| BAK-125       | PeptiQuant Plus Human Plasma Biomarker Assessment Kit | 125                     | 20, 50, or 100<br>samples | <ul><li>6490/6495 QqQ</li><li>QTRAP 6500</li><li>Q Exactive Plus</li><li>Xevo TQ-XS</li></ul> |
| BAK-270       | PeptiQuant Plus Human Plasma Biomarker Assessment Kit | 270                     | 100 samples               | <ul><li>6490/6495 QqQ</li><li>QTRAP 6500</li><li>Q Exactive Plus</li></ul>                    |
| M-BAK-125*    | PeptiQuant Plus Mouse Plasma Biomarker Assessment Kit | 125                     | 20, 50, or 100<br>samples | <ul><li>6490/6495 QqQ</li><li>QTRAP 6500</li><li>Q Exactive Plus</li><li>6545 Q-TOF</li></ul> |

<sup>\*</sup>Alternate sets of 125 target proteins are available.

PeptiQuant is a trademark of MRM Proteomics Inc.

# **CIL – Advancing Your Research**

The global and targeted measurement of biomolecules continues to be two areas of growing focus in analytical chemistry and biomedicine. Drivers for this research include efforts to better understand the underlying mechanisms of disease pathogenesis and to improve precision medicine through the qualitative/ quantitative screening of candidate biomarkers. To address these objectives, MS-based approaches are increasingly utilized and have been aided by advancements in experimental methodologies, instrumentation technologies, and bioinformatic tools. CIL offers a wide range of isotope-labeled compounds to enhance these research efforts. Please visit isotope.com for a complete listing of isotope-labeled compounds.



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