

# Amino acid and acylcarnitine detection with the PerkinElmer MS/MS system for newborn screening



**Forming part of PerkinElmer's total solution for expanded newborn screening**, the 3026-0010 NeoGram™ Amino Acids and Acylcarnitines Tandem Mass Spectrometry kit is intended for the measurement and evaluation of amino acid, free carnitine and acylcarnitine concentrations from newborn heel prick blood samples dried on filter paper.

Quantitative analysis of amino acids, free carnitine and acylcarnitines and their relationship with each other provides analyte concentration profiles that may aid in the screening of newborns for various metabolic disorders.

The kit is supplied with 23 internal standards and 21 controls and has the capability of measuring over 40 analytes.

#### Contents of the kit

- Stable-isotope amino acids internal standards, 1 vial.

#### Included are:

<sup>15</sup>N,<sup>2-13</sup>C-Glycine  
<sup>2</sup>H<sub>4</sub>-Alanine  
<sup>2</sup>H<sub>8</sub>-Valine  
<sup>2</sup>H<sub>3</sub>-Leucine  
<sup>2</sup>H<sub>3</sub>-Methionine  
<sup>2</sup>H<sub>5</sub>-Phenylalanine  
<sup>13</sup>C<sub>6</sub>-Tyrosine  
<sup>2</sup>H<sub>2</sub>-Ornithine·2HCl  
<sup>2</sup>H<sub>2</sub>-Citrulline  
<sup>2</sup>H<sub>4</sub>,<sup>13</sup>C-Arginine·HCl

- Stable-isotope carnitine and acylcarnitines internal standards, 1 vial.

#### Included are:

d<sub>9</sub>-Free carnitine (d<sub>9</sub>-C0)  
d<sub>3</sub>-Acetylcarnitine (d<sub>3</sub>-C2)  
d<sub>3</sub>-Propionylcarnitine (d<sub>3</sub>-C3)  
d<sub>3</sub>-Butyrylcarnitine (d<sub>3</sub>-C4)  
d<sub>9</sub>-Isovalerylcarnitine (d<sub>9</sub>-C5)  
d<sub>6</sub>-Glutaryl carnitine (d<sub>6</sub>-C5DC)  
d<sub>3</sub>-Hexanoylcarnitine (d<sub>3</sub>-C6)  
d<sub>3</sub>-Octanoylcarnitine (d<sub>3</sub>-C8)  
d<sub>3</sub>-Decanoylcarnitine (d<sub>3</sub>-C10)  
d<sub>3</sub>-Lauroylcarnitine (d<sub>3</sub>-C12)  
d<sub>3</sub>-Myristoylcarnitine (d<sub>3</sub>-C14)  
d<sub>3</sub>-Palmitoylcarnitine (d<sub>3</sub>-C16)  
d<sub>3</sub>-Octadecanoylcarnitine (d<sub>3</sub>-C18)

- Dried blood spot controls, 2 filter paper cards, Low level and High level for each of the following analytes:

Free carnitine (C0)  
Acetylcarnitine (C2)  
Propionylcarnitine (C3)  
Butyrylcarnitine (C4)  
Isovalerylcarnitine (C5)  
Glutaryl carnitine (C5DC)  
Hexanoylcarnitine (C6)  
Octanoylcarnitine (C8)  
Decanoylcarnitine (C10)  
Lauroylcarnitine (C12)  
Myristoylcarnitine (C14)  
Palmitoylcarnitine (C16)  
Octadecanoylcarnitine (C18)

Alanine  
Citrulline  
Glycine  
Leucine  
Methionine  
Phenylalanine  
Tyrosine  
Valine

NeoGram AAAC Flow Solvent, 3 bottles, 473 mL  
NeoGram AAAC Extraction Solution, 1 bottle, 237 mL  
NeoGram AAAC Reconstitution Solution, 1 bottle, 180 mL  
3.0 N HCl in n-butanol, 2 bottles, 100 mL  
V-bottomed, heat-resistant microplates (Nunc) (uncoated, 96 wells), 20 plates  
Truncated V-bottomed, clear microplates (uncoated, 96 wells), 20 plates  
Aluminum foil microplate covers  
Adhesive microplate covers  
Heat sealing film  
Barcode labels for the plates  
Lot specific quality control certificate

**All PerkinElmer diagnostic products may not be available in all countries. For information on availability please contact your local representative.**

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