



Amino Acid Panel

Amino Acids

Amino Acids (AA) are the foundational building blocks for peptides and proteins. These small molecules regulate metabolic pathways that are involved in cell maintenance, growth, reproduction, and immunity. Branched chain amino acids play a large role in building muscle tissue and participate in increasing protein synthesis. Amino acids also play a role in cell signaling, gene expression and protein phosphorylation. Maintaining an optimal balance of amino acids is vital to maintaining a stable equilibrium of physiogolical processes.

Applications

The amino acid panel measures **free** amino acids in biofluids, cells and tissues and can be used in many different applications including the following:

- Metabolic disorders
- Human and animal nutrition
- Bioprocessing
- Drug development

Contact us to get started

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0	
$\overline{}$	> 011
Y	OH
$\overline{NH_2}$	

	LLOQ	
Amino Acid Panel	Plasma/Serum	
Alanine	1.00 μg/mL	
Arginine	1.00 μg/mL	
Asparagine	0.250 μg/mL	
Aspartic Acid	0.250 μg/mL	
Glutamic Acid	0.500 μg/mL	
Glutamine	2.50 μg/mL	
Glycine	0.750 μg/mL	
Histidine	0.500 μg/mL	
Isoleucine	0.250 μg/mL	
Leucine	0.500 μg/mL	
Lysine	1.00 μg/mL	
Methionine	0.125 μg/mL	
Phenylalanine	0.400 μg/mL	
Proline	1.00 μg/mL	
Serine	0.400 μg/mL	
Threonine	0.500 μg/mL	
Tryptophan	0.500 μg/mL	
Tyrosine	1.00 μg/mL	
Valine	1.00 μg/mL	
trans-4-hydroxyproline	0.0500 μg/mL	
Ornithine	0.250 μg/mL	
Citrulline	0.200 μg/mL	

The panel is for non-GxP testing and is not for diagnostic use

Analysis Method and Instrumentation

LC-MS/MS (Agilent 1290 UHPLC/Sciex QTrap 5500)

Sample Type and Required Amounts

Sample Type	Sample Requirement
Plasma/Serum	100 - 150 μL
Cell cultures & supernatants	2 million cells / 100 - 150 μL

Others on request