



Histamine and Histidine

Histamine is a biogenic amine involved in several pleiotropic functions in both peripheral tissues and central nervous system (CNS), including vasodilation, immunomodulation and inflammatory response. Histamine is synthesized by histidine decarboxylase from L-histidine in different cell types (mast cells, basophils, glial cells, endothelial cells, and neurons), and it acts through different types of Histamine Receptors (H1R, H2R, H3R, and H4R).

In the brain, histamine acts as a neurotransmitter and neuroimmune modulator, affecting neuroendocrine system, circadian rhythms, sleep-wakefulness cycle, psychomotor activity, mood, learning, cognition, appetite, and eating behavior. Alterations in brain histamine are involved in several pathological conditions, such as stroke, epilepsy, anxiety, depression, psychosis, neurodegeneration, and neuroinflammatory processes. Modules of histamine metabolism are recognized drug target for neuronal diseases, such as cognitive impairment, schizophrenia, sleep/wake disorders, epilepsy, and neuropathic pain.

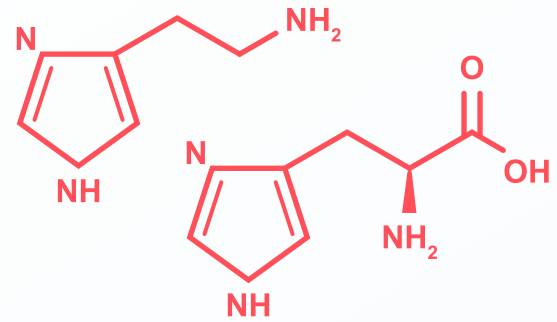
Applications

- ▶ Gut health & wellness,
- ▶ Immune system, infectious disease & COVID-19
- ▶ Inflammation & oxidative stress
- ▶ Cardiovascular diseases

Contact us to get started
info@metabolon.com

+1 (919) 572-1711
metabolon.com
 617 Davis Drive, Suite 100, Morrisville, NC, 27560
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Panel	LLOQ*	
	Serum/ Plasma	CSF
Histidine	500 ng/mL	500 ng/mL
Histamine	0.100 ng/mL (100 pg/mL)	0.05 ng/mL (50 pg/mL)

*Lower Limit of Quantitation (LLOQ) varies for each sample type

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 and CSF	250 µL
Others on request	