

L-Histidine ELISA kit – High Sensitivity – Plasma samples

Ref: IS-I-1300R

L-Histidine (His) is an essential amino acid displaying a unique properties profile, involved in a number of biological activities, e.g. in pH buffering, in metal ion chelation, and in oxidative species scavenging, which confer it many physiological properties as antioxidant, anti-inflammatory, and in erythropoiesis and immune system regulation. While there are several pathways of His degradation, most catabolism is directed to protein turnover and glutamate production and begins with histidase-dependent deamination. Also, the minor pathways of His as a precursor of histamine and His-rich proteins and peptides make it unique among other amino acids.

Sample type Plasma

Capacity 96 tests

Sensitivity 1.4 μ M

Range 10 - 390 μ M

Assay time Sample preparation 3h, ELISA overnight

Reactivity Reacts with all species

INFORMATIONS

Product overview

Product name	L-Histidine ELISA kit
Description	Competitive ELISA kit for the quantitative measurement of L-Histidine (His) in plasma samples. For research use only
Format	96-well plate
Samples	Plasma
Minimal sample volume	10 μ L
Reactivity	Reacts with all species
Standard range	5.3 – 390 μ M (1.1 – 81.8 μ g/mL)
Sensitivity	1.4 μ M
Specificity	No significant cross-reactivity was observed with Histamine dihydrochloride, L-Glutamic acid, 3-Methyl-L-histidine & L-Histidinol dihydrochloride
Assay time	Sample preparation 3h and ELISA overnight
Storage	Store at 2-8°C for up to 6 months
Datasheets	Instructions for use , Material Safety Datasheet

For research use only – Do not use for diagnostic

PROTOCOLS

Sample collection & storage EDTA Plasma
Store samples at 2-8°C for up to 48h or -20°C for longer period (up to 6 months)

Sample preparation Sample preparation (3 hours)

ELISA L-Histidine antiserum overnight incubation, revelation and read steps (1h)

Detailed protocol [Download instructions for use](#)

REFERENCES

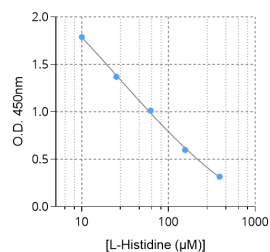
Selected articles on Histidine

- Holecek et al., [Histidine in Health and Disease: Metabolism, Physiological Importance, and Use as a Supplement](#), Nutrients, 2020
- Poon et al., [Histidine-rich glycoprotein: the Swiss Army knife of mammalian plasma](#), Blood, 2010
- Li et al., [Amino acids and immune function](#), Br J Nutr, 2007
- Tsukano et al., [Plasma histidine concentrations as a specific biomarker for intestinal mucosal damage in calves with cryptosporidiosis](#), Res Vet Sci, 2020
- Kanarek et al., [Histidine catabolism is a major determinant of methotrexate sensitivity](#), Nature, 2018
- Frezza et al., [Histidine metabolism boosts cancer therapy](#), Nature, 2018
- Petrova et al., [Potential Benefits and Pitfalls of Histidine Supplementation for Cancer Therapy Enhancement](#), J Nutr, 2020

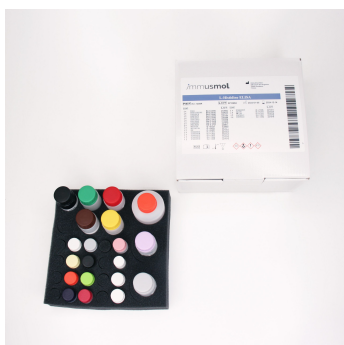
Product pictures



L-Histidine ELISA kit



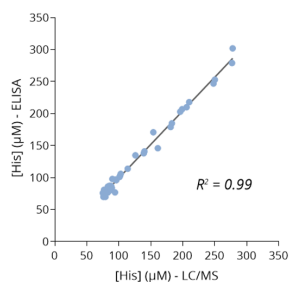
Typical standard curve of Histidine ELISA



L-Histidine ELISA kit



L-Histidine ELISA kit



Cross-validation of L-Histidine ELISA and LC/MS data in human plasma samples

Contact information

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To order, review, ask for technical support, visit product page at:

<https://www.immusmol.com/shop/l-histidine-elisa-kit/>