

L-Serine ELISA kit

Ref: IS-I-1200R

L-Serine (L-Ser) is a non-essential amino acid which becomes conditionally essential - in certain circumstances - particularly when it cannot be synthesized in a sufficient amount to meet the cellular demands. L-Ser is important for brain development and functions which are especially sustained by altered L-Ser levels in psychiatric disorders and occurrence of severe neurological abnormalities in patients with defects in L-Ser biosynthesis.

The L-Ser ELISA kit allows for the determination of Ser in cell culture supernatant, serum and plasma samples working with a sample volume of 20µL. The kit is easy to implement and well suited for both preclinical and clinical studies

Sample type Plasma, Serum, Cell culture supernatant

Capacity 96 tests

Sensitivity 2.4µM

Range 3.8 - 625µM

Assay time Sample preparation 3h, ELISA overnight

Reactivity Reacts with all species

INFORMATIONS

Product overview

Product name	L-Serine ELISA kit
Description	Competitive ELISA kit for the quantitative measurement of L-Serine (Ser) in plasma and serum samples. For research use only
Format	96-well plate
Samples	Plasma, Serum, Cell supernatant
Minimal sample volume	20µL
Reactivity	Reacts with all species
Standard range	3.8 - 625µM
Sensitivity	2.4µM
Specificity	No significant cross-reactivity was observed with Glycine, L-Threonine, L-Cysteine and D-Serine
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-Serine antiserum overnight incubation, revelation and read steps (1h)

Detailed protocol [Download instructions for use](#)

REFERENCES

Selected articles on Serine:

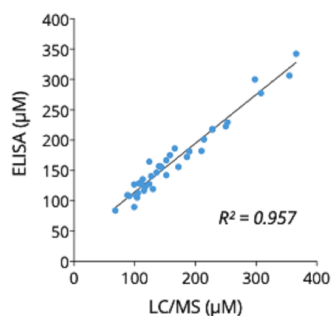
- [Mattaini et al., The importance of serine metabolism in cancer](#), J Cell Biol, 2016
- [Tabatabaie et al., L-serine synthesis in the central nervous system: a review on serine deficiency disorders](#), Mol Genet Metab, 2010
- [Koning et al., L-serine in disease and development](#), Biochemical Journal, 2003

Product pictures



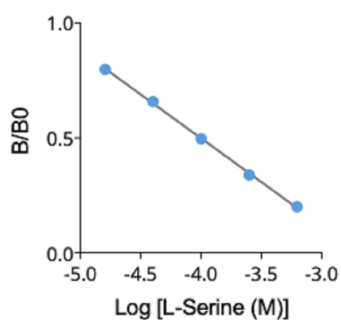
IS-I-1200 : L-Serine (Ser) ELISA kit

Validated IS-I-1200 ELISA kit allows for the determination of L-Serine (Ser) in plasma samples of a volume as low as 10µL and with a sensitivity of 2.4µM.



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

Ser was quantified in human plasma samples from 40 healthy subjects using IS-I-1200 ELISA kit or by LC/MS. Correlation study showed $R^2=0.957$, thereby confirming the accuracy of the immunoassay.



Typical standard curve of Serine ELISA

Typical standard curve obtained with the Ser ELISA kit where the optical density is inversely correlated within levels within a linear range of 3.8 - 625µM. (example data - do not use for calculation)

Contact information

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

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