

# L-Phenylalanine ELISA kit I High Sensitivity I Plasma, Serum

Ref: IS-I-1700R

L-Phenylalanine (Phe) is an essential amino acid that cannot be synthesized by humans or other vertebrates and must be supplied from an exogenous diet. Mutations in the gene encoding for PAH have been linked to Phenylketonuria (PKU), an aminoacidopathies - associated with fair skin, eczema, seizures, tremors, and hyperactivity - characterized by an increased blood/brain level of Phe and its derivatives, and a concomitant decrease in Tyr.

In order to provide accurate and easy-to-implement tool to better understand Phe functions, we developed and validated a novel ELISA kit which allows for Phe quantitation in biological samples including plasma and sera. The assay requires a sample volume as low as 20 $\mu$ L and is characterized by a 1.7 $\mu$ M sensitivity

**Sample type** Plasma, Serum

---

**Capacity** 96 tests

---

**Sensitivity** 1.7 $\mu$ M

---

**Range** 3.4 - 390 $\mu$ M

---

**Assay time** Sample preparation 3h, ELISA overnight

---

**Reactivity** Reacts with all species

## INFORMATIONS

---

### Product overview

<b>Product name</b>	L-Phenylalanine ELISA kit
<b>Description</b>	Competitive ELISA kit for the quantitative measurement of L-Phenylalanine (Phe) in plasma and serum samples. <b>For research use only</b>
<b>Format</b>	96-well plate
<b>Samples</b>	Plasma, Serum
<b>Minimal sample volume</b>	20 $\mu$ L
<b>Reactivity</b>	Reacts with all species
<b>Standard range</b>	3.4 - 390 $\mu$ M
<b>Sensitivity</b>	1.7 $\mu$ M
<b>Specificity</b>	No significant cross-reactivity was observed with L-Tyrosine, L-DOPA, Dopamine hydrochloride or Noradrenaline
<b>Assay time</b>	Sample preparation 3h and ELISA overnight
<b>Storage</b>	Store at 2-8°C for up to 6 months
<b>Datasheets</b>	<a href="#">Instructions for use</a> , <a href="#">Material Safety Datasheet</a>

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-Phenylalanine antiserum overnight incubation, revelation and read steps (1h)

---

Detailed protocol [Download instructions for use](#)

## REFERENCES

---

Selected articles on Phenylalanine:

- [Atila et al., The serum amino-acid profile in COVID-19](#), Amino Acids, 2021

## Product pictures

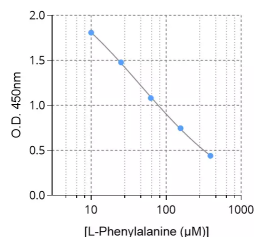
---



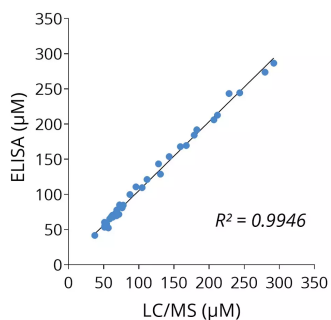
### L-Phenylalanine (Phe) ELISA kit

Validated IS-I-1700 ELISA kit allows for the determination of L-Phenylalanine (Phe) in plasma samples of a volume as low as 20µL and with a sensitivity of 1.7µM.

---



**Typical standard curve Phenylalanine**



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

L-Phe was quantified in human plasma samples from 40 healthy subjects using IS-I-1700 ELISA kit or by LC/MS. Correlation study showed  $R^2=0.99$ , thereby confirming the accuracy of the immunoassay.

## Contact information

Immusmol  
229 Cours de l'Argonne  
33 000 Bordeaux - France  
Tel: +33 (0) 5 6431 1170  
[www.immusmol.com](http://www.immusmol.com)

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

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