

# L-Kynurenine ELISA kit High Sensitivity

Ref: BA-E-2200

The L-Kynurenine ELISA is an easy-to-use assay tailored for the quantification of Kynurenine across large series of samples. Optimized for the analysis of biological fluids (plasma, cell culture supernatant, serum...), the KYN ELISA features a lower limit of detection at 45.7ng/ml and a minimal sample volume of 20µl, thus allowing longitudinal studies in mice.

**Sample type** Plasma, serum, cell culture supernatant

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**Capacity** 96 tests

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**Sensitivity** < 45.7ng/ml

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**Range** 100 - 10000ng/ml

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**Assay time** Sample acylation 90 min, ELISA overnight

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**Reactivity** Reacts with all species

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**References** [Cited in >50 papers](#)

# INFORMATIONS

## Product overview

<b>Product name</b>	L-Kynurenine ELISA kit
<b>Description</b>	Enzyme immunoassay (ELISA) for the quantitative determination of L-Kynurenine in biological fluids and cell supernatant
<b>Format</b>	96-well plate
<b>Samples</b>	Plasma, serum, cell culture supernatant
<b>Minimal sample volume</b>	20µL
<b>Reactivity</b>	Reacts with all species
<b>Standard range</b>	0/100 – 10000ng/ml
<b>Sensitivity</b>	< 47.5ng/ml
<b>Specificity</b>	No significant cross-reactivity was observed with L-Kynurenine analogs such as L-Tryptophan, 3-Hydroxy-DL-Kynurenine, 5-Hydroxy-DL-Tryptophan, Tyrosine, Serotonin, Phenylalanin, L-Asparagine and Kynurenic acid
<b>Assay time</b>	Sample acylation 90 min and ELISA overnight
<b>Storage</b>	Store at 2-8°C for to 6 months
<b>Datasheets</b>	<a href="#">Instructions for use</a> , <a href="#">Material Safety Datasheet</a>

## PROTOCOLS

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**Sample collection & storage**

Plasma/Serum: Do not use lipemic, haemolytic samples, as well as samples containing precipitates or fibrin strands. Store samples at 2-8°C for up to 48h or -20°C for longer period (up to 6 months)

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**Sample preparation**

Sample acylation (90 min)

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**ELISA**

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

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**Detailed protocol**

RUO: [Download instructions for use](#)

IVD: [Download instructions for use](#)

## REFERENCES

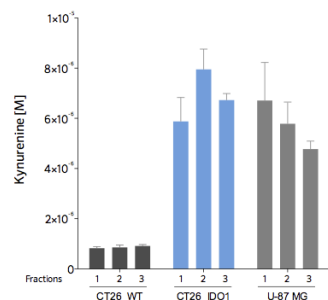
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**Product citation**

## Product pictures

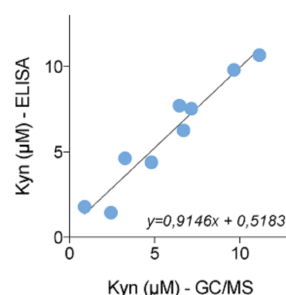


**L-Kynurenine ELISA kit**



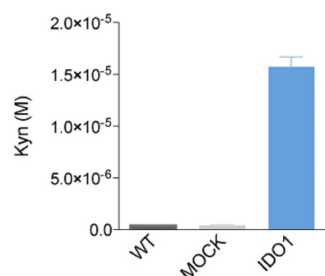
### Determination of L-Kynurenine levels in cell cultures through microdialysis collection and by ELISA quantification

Murine CT26 colorectal cancer cell line WT or stably transfected with vector containing cDNA encoding for indoleamine 2,3 dioxygenase (IDO1) or Human U-87 MG glioblastoma cell line were cultured for 48 hours. Cell culture was subjected to microdialysis collection (3 fractions collected) and kynurenine was measured using the Kynurenine ELISA kit (BA-E-2200). As expected, kynurenine level was higher in IDO1-proficient CT26 cells than in parental (WT) CT26 cell lines, and also high in U87-MG cells.



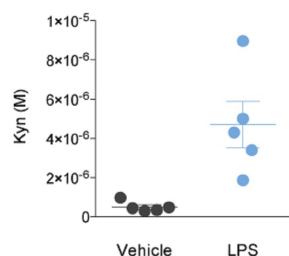
### Kynurenine ELISA cross-validation by GC/MS in human plasma samples Determination of L-Kynurenine levels in cell cultures through microdialysis collection and by ELISA quantification Kynurenine ELISA cross-validation by GC/MS in human plasma samples L-Kynurenine quantification by ELISA in 20μl mice plasma samples Determination of L-Kynurenine levels in CT26 cell cultures by ELISA Kynurenine ELISA - typical standard curve Kynurenine ELISA cross-validation by GC/MS in human plasma samples

Citrate-anticoagulated human plasma samples were processed for Kynurenine measurement by gas-chromatography/mass-spectrometry and ELISA. As shown here, ELISA and GC/MS-based results showed a high correlation.



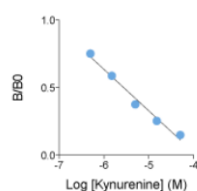
### Determination of L-Kynurenine levels in CT26 cell cultures by ELISA Determination of L-Kynurenine levels in cell cultures through microdialysis collection and by ELISA quantification Kynurenine ELISA cross-validation by GC/MS in human plasma samples L-Kynurenine quantification by ELISA in 20μl mice plasma samples Determination of L-Kynurenine levels in CT26 cell cultures by ELISA Kynurenine ELISA - typical standard curve Determination of L-Kynurenine levels in CT26 cell cultures by ELISA

Murine CT26 colorectal cancer cell line was stably transfected with either empty vector (Mock) or vector containing cDNA encoding for indoleamine 2,3 dioxygenase (IDO1). Cells were cultured for 48 hours and kynurenine was measured using the Kynurenine ELISA kit. As expected, kynurenine level was higher in IDO1-proficient CT26 cells than in mock or parental (WT) CT26 cell lines.



**L-Kynurenine quantification by ELISA in 20µl mice plasma samples**  
**Determination of L-Kynurenine levels in cell cultures through microdialysis collection and by ELISA quantification**  
**Kynurenine ELISA cross-validation by GC/MS in human plasma samples**  
**L-Kynurenine quantification by ELISA in 20µl mice plasma samples**  
**Determination of L-Kynurenine levels in CT26 cell cultures by ELISA**  
**Kynurenine ELISA - typical standard curve**  
**L-Kynurenine quantification by ELISA in 20µl mice plasma samples**

C57BL/6 mice were challenged intraperitoneally with 10mg/kg of LPS or with its vehicle (PBS). Twenty four hours after LPS exposure, animals were bled at the tail vein using EDTA-Monovette®. Kynurenine was quantified by mean of the Kynurenine ELISA kit. As demonstrated in literature (Bessede et al. Nature, 2014), LPS challenge induces a substantial increase in kynurenine plasmatic level.



### Kynurenine ELISA - typical standard curve

Example of standard curve obtained with the Kynurenine ELISA Kit. In this competitive ELISA, optical density is invertly correlated with Kynurenine levels. Only serves as example - do not use for calculation.



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## Contact information

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

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