

# Kynurenine / Tryptophan ratio ELISA pack I High Sensitivity

Ref: ISE-2227R

The Kynurenine/Tryptophan ratio ELISA pack enables quantitative measurements of tryptophan catabolism along the kynurenine pathway in a large number of samples. The two kits included in the pack are ready to use. Highly sensitive, with a minimum sample volume of 20µl, they permit the performance of longitudinal studies in mice.

<b>Sample type</b>	Plasma, Serum, Cell culture supernatant, (Urine)
<b>Kit capacity</b>	2 x 96 tests
<b>Sensitivity</b>	LoD KYN: < 47.5ng/ml LoD TRP: < 1.2µg/ml
<b>Range</b>	KYN: 0/100 - 10000ng/ml TRP: 2.5 - 250µg/ml
<b>Reactivity</b>	Reacts with all species
<b>References</b>	<a href="#">Cited in 52 papers</a>

# INFORMATIONS

## Product overview

<b>Product name</b>	Kynurenine/Tryptophan ratio ELISA pack – composed of 1 x BA-E2200 kit and 1 x BA-E-2700 kit
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<b>Description</b>	Two enzyme immunoassays (ELISA) allowing the quantitative determination of L-Kynurenine to L-Tryptophan ratio in urine, plasma and serum samples
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<b>Labels</b>	CE, RUO, IVD (EU only)
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<b>Format</b>	2 x 96-well plate
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<b>Samples</b>	Plasma, serum, cell culture supernatant, (Urine)
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<b>Minimum sample volume</b>	20µL
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<b>Reactivity</b>	Reacts with all species
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<b>Standard range</b>	KYN: 0/100 – 10000ng/ml TRP: 2.5 – 250µg/ml
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<b>Sensitivity</b>	LoD KYN: < 47.5ng/ml LoD TRP: < 1.2µg/ml
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<b>Specificity</b>	No significant cross-reactivity was observed with L-Tryptophan and L-Kynurenine analogs. See product pages for <a href="#">L-Kynurenine ELISA</a> and <a href="#">L-Tryptophan ELISA</a>
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<b>Storage</b>	Store at 2-8°C for to 6 months
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**Datasheets**

IVD: [Instructions for use – TRP kit](#), [Instructions for use -KYN kit](#)

RUO: [Instructions for use – TRP kit](#), [Instructions for use -KYN kit](#)

## PROTOCOLS

<b>Sample collection &amp; storage</b>	<u>Plasma/Serum</u> : EDTA-, Heparin- or Citrate- samples stored at 2-8°C for up to 48h or -20°C for longer period (up to 6 months)
<b>Sample preparation</b>	<u>KYN</u> : Sample acylation (90 min) <u>TRP</u> : Sample precipitation (15 min) and derivatization (2h)
<b>ELISA</b>	Antisera overnight incubation, revelation and read steps (1h)
<b>Detailed protocol</b>	IVD: <a href="#">Instructions for use - TRP kit</a> , <a href="#">Instructions for use - KYN kit</a> RUO: <a href="#">Instructions for use TRP kit</a> , <a href="#">Instructions for use - KYN kit</a>

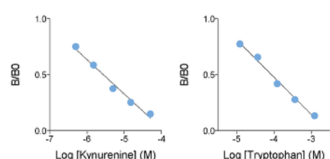
## REFERENCES

### Product citations

## Product pictures



**Kynurenine / Tryptophan ratio ELISA pack**

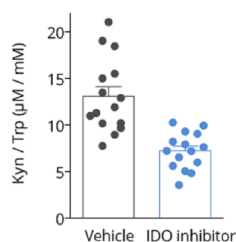


### Kynurenine - Tryptophan ELISA standard curves

Examples of standard curves obtained with the Kynurenine and Tryptophan ELISA kits. In these competitive ELISA, optical density is invertly correlated with Kynurenine/Tryptophan levels. Only serves as example - do not use for calculation.



### Kynurenine / Tryptophan ratio ELISA pack

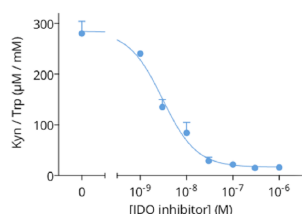


### Kynurenine/Tryptophan ratio ELISA in IDOi-treated mice

Plasma samples were collected from MCA205 tumor-bearing mice treated with either vehicle or IDO inhibitor (GDC-0919) and determination of kynurenine to tryptophan ratio (KTR)

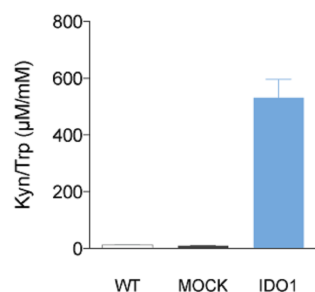


### Kynurenine / Tryptophan ratio ELISA pack



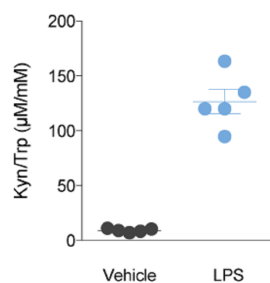
### Kynurenine / Tryptophan in cell culture supernatants

Mature human dendritic cells (mDCs) were cultured together with HLA-mismatched CD4<sup>+</sup> T cells (mixed lymphocyte reaction context) and exposed for 72 hours with increasing concentrations of a reference IDO1 inhibitor. Supernatants were then collected for kynurenine and tryptophan content measurement by mean of ELISA (ISE-2227 Kynurenine/tryptophan ELISA pack). Kynurenine content (through KTR) is dose-dependently decreased by IDO inhibition.



### L-Kynurenine/ L-Tryptophan ratio ELISA in CT26 tumor cell lines

Murine CT26 colorectal cancer cell line was modified to stably express indoleamine 2,3 dioxygenase (IDO1). Its empty-vector counterpart cell-line (Mock) was used as a negative control for the transfection, while WT was the parental CT26 cell line. These different cell lines were cultured in 24-well plates for 48 hours. Kynurenine and Tryptophan were then measured with dedicated ELISA kits and KTR ratio.



### Kynurenine/Tryptophan ratio ELISA in LPS-treated mice

C57BL/6 mice were exposed to 10mg/kg of LPS or with PBS for 24 hours. Mice (n=5/experimental group) were bled at the tail vein using EDTA-Monovette®. Kynurenine and Tryptophan were quantified using ELISA kits. As an inducer of inflammatory response, LPS triggered a significant increase in plasmatic KTR level.

## Contact information

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

<https://www.immusmol.com/shop/kynurenine-tryptophan-ratio-elisa-pack/>