

Private: Kynurenine/Tryptophan ratio ELISA pack Research FORMER

Ref: ISE-2227R-F

The Kynurenine/Tryptophan ratio ELISA pack enables quantitative measurements of tryptophan catabolism along the kynurenine pathway in a large number of samples. Intended for research use only, 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.

Sample type Plasma, Serum, Cell culture supernatant, (Urine)

Kit capacity 2 x 96 tests

Sensitivity LoD KYN: < 47.5ng/ml LoD TRP: < 1.2µg/ml

Range KYN: 100 - 10000ng/ml TRP: 2.5 - 250µg/ml

Reactivity Reacts with all species

References [Citations in literature](#)

INFORMATIONS

Product overview

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

Datasheets

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

The pack for in-vitro-diagnostic (IVD) use can be ordered with the catalog no. [ISE-2227](#)

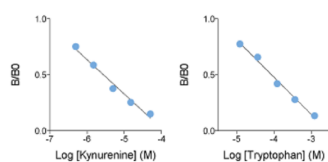
PROTOCOLS

Sample collection & storage	<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)
Sample preparation	<u>KYN</u> : Sample acylation (90 min) <u>TRP</u> : Sample precipitation (15 min) and derivatization (2h)
ELISA	Antisera overnight incubation, revelation and read steps (1h)
Detailed protocol	Instructions for use – TRP kit , Instructions for use – KYN kit

REFERENCES

Product citation

Product pictures

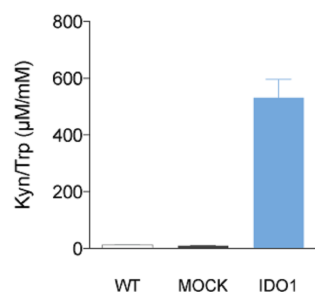


Kynurenine - Tryptophan ELISA standard curves

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.

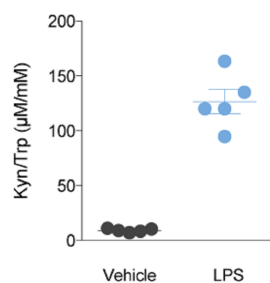


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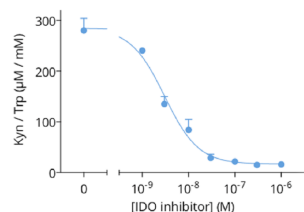
L-Kynurenine/ L-Tryptophan ratio ELISA in CT26 tumor cell lines

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.



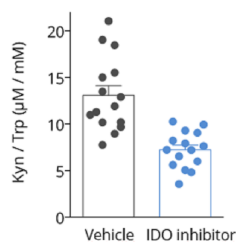
Kynurenine/Tryptophan ratio ELISA in LPS-treated mice

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.



Kynurenine / Tryptophan in cell culture supernatants

Mature human dendritic cells (mDCS) were cultured together with HLA-mismatched CD4+ 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.



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)



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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/?post_type=product&p=874