Kynurenic acid ELISA kit

Ref: IS-I-0200

Kynurenic acid (KYNA) is a downstream metabolite produced along the Kynurenine Pathway well-known to possess several neuromodulatory functions, as well as immuno-modulatory properties. Measurement of KYNA in biological samples has been presented as a possible biomarker in several diseases including neurological or psychiatric disorders.
The Kynurenic Acid ELISA kit is optimized for the quantitation of Kynurenic Acid (KYNA) within **serum** samples. This easy-to-use competitive assay is well-suited for both small and large series of samples. Working with a 50µL sample volume , this assay enables pre-clinical and clinical sample testings.

Sample type	Serum
Capacity	96 tests
Sensitivity	0.53 ng/ml
Range	1.40 - 74 ng/ml
Assay time	Sample derivatization 90 min, ELISA overnight
Species reactivity	Reacts with all species

Product information

Product overview

Product name	Kynurenic Acid ELISA kit
Description	Competitive ELISA kit for the quantitative measurement of Kynurenic Acid in serum samples. **For research use only.**
Format	96-well plate
Samples	Serum
Minimal sample volume	50 µL
Species reactivity	React with all species
Standard range	1.40 - 74 ng/mL
Sensitivity	0.53 ng/mL
Specificity	No significant cross-reactivity was observed with Kynurenic Acid analogs such as Quinolinic Acid, Xanthurenic acid, Kynurenine, Picolinic acid, 3Hydroxy-Anthranilic Acid
Assay time	Sample derivatization 90 min and ELISA overnight
Storage	Store at 2-8°C for up to 6 months.
Datasheets	**Instructions for use**, **Material Safety Datasheet**

Protocols

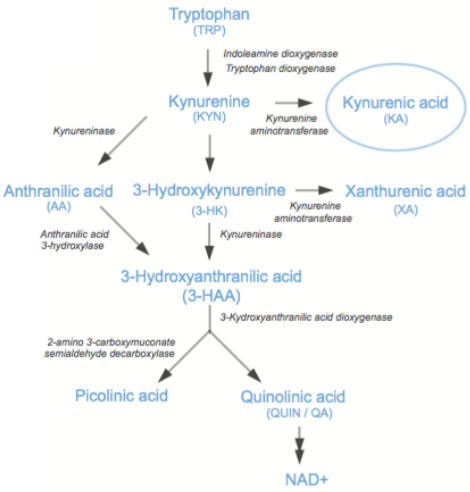
Sample collection & storage	Serum: Do not use lipemic, haemolytic samples, as well as samples containing precipitates or fibrin strands. Store samples at 2-8°C for up to 48h or -20°C for longer period (up to 6 months).
Sample preparation	Sample derivatization (90 min)
ELISA	Kynurenic acid antiserum overnight incubation, revelation and read steps (1h).
Detailed protocol	**Download instructions for use**

References

Selected articles on Kynurenic Acid:

- Pedraz-Petrozzi et al. Effects of inflammation on the kynurenine pathway in schizophrenia - a systematic review. J Neuroinflammation. 2020
- Achtyes et al. Inflammation and kynurenine pathway dysregulation in post-partum women with severe and suicidal depression. Brain Behav Immun. 2020
- Walczak et al. Kynurenic acid and cancer: facts and controversies. Cell Mol Life Sci. 2019
- Lim et al. Kynurenine pathway metabolomics predicts and provides mechanistic insight into multiple sclerosis progression. Sci Rep. 2017
- Plitman et al. Kynurenic Acid in Schizophrenia: A Systematic Review and Meta-analysis. Schizophr Bull. 2017
- Wirthgen et al. Kynurenic Acid: The Janus-Faced Role of an Immunomodulatory Tryptophan Metabolite and Its Link to Pathological Conditions. Front Immunol. 2017

Product pictures



Kynurenic acid (KYNA) is a metabolite produced along the Kynurenine Pathway

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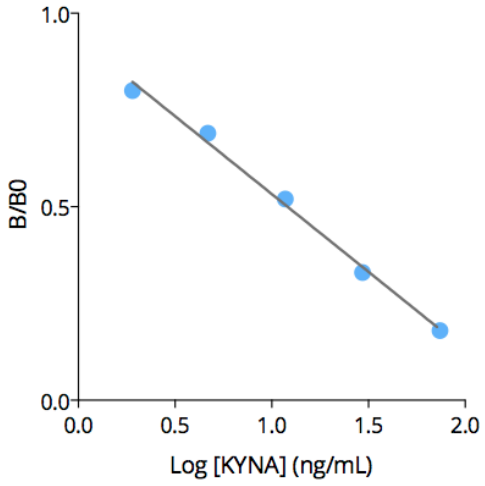
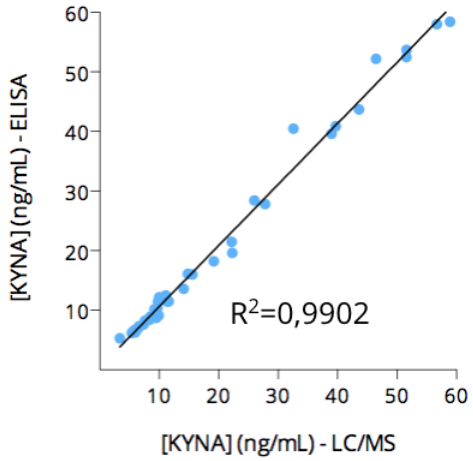
Kynurenic Acid ELISA kit IS-I-0200

96-w plate format // Low volume samples // Sensitive, easy-to-implement // Cross-validated with LC/MS



Typical standard curve of Kynurenic acid ELISA

Example of standard curve obtained with the KYNA ELISA Kit. In this competitive ELISA, optical density is invertly correlated with Kynurenic Acid levels.



Cross-validation of Kynurenic Acid ELISA and LC/MS data in human serum samples

Human serum samples (n=40) were processed for Kynurenic Acid measurement by mean of both KYNA ELISA kit and liquid chromatography–mass spectrometry (LC/MS). As depicted, results obtained with ELISA and LC/MS are highly correlated (R Squared=0,9902).

Contact information

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

https://www.immusmol.com/kynurenic-acid-elisa-kit.html