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Kynurenic Acid/Quinolinic Acid ELISA pack – High Sensitivity

Ref: ISE-0102R

Through the degradation of L-Tryptophan, the Kynurenine pathway (KP) generates a series of catabolites collectively known as Kynurenines, which can exert immunomodulatory and/or neuroactive properties. Known to respectively harbor neuroprotective and neurotoxic functions, **Kynurenic (KYNA)** and **Quinolinic (QA) acids** are found to be dysregulated in several neuroinflammatory disorders including Parkinson and Alzheimer disease but also Amyotrophic Lateral Sclerosis and Multiple Sclerosis.

Indended for research use only, the two kits included in the pack are ready to use, optimized for the quantitation of Kynurenic Acid (KYNA) and Quinolinic Acid (QA) within **serum and plasma** samples. These easy-to-use competitive assays are well-suited for both small and large series of samples. Working with a 25-50µL sample volume, these assays enable pre-clinical and clinical sample testings.

Sample type	Serum, Plasma
Kit capacity	2 x 96 tests
Sensitivity	LoD KYNA: 0.53ng/ml LoD QA: 6ng/ml
Range	KYNA: 1.40 - 74ng/ml QA: 25 - 200ng/ml
Reactivity	Reacts with all species
References	Cited in 4 papers

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INFORMATIONS

Product overview

Product name	Kynurenic Acid/Quinolinic Acid ELISA pack
Description	Two enzyme immunoassays (ELISA) allowing the quantitative determination of Kynurenic acid and Quinolinic acid in serum samples. For research use only
Labels	RUO
Format	2 x 96-well plate
Samples	Serum, Plasma
Minimum sample volume	25-50μL
Reactivity	Reacts with all species
Standard range	KYNA: 1.40 – 74ng/ml QA: 25 – 2000ng/ml
Sensitivity	LoD KYNA: 0.53ng/ml LoD QA: 6ng/ml
Specificity	No significant cross-reactivity was observed analogs for each kit. See product pages for <u>Kynurenic acid ELISA</u> and <u>Quinolinic acid ELISA</u>
Storage	Store at 2-8°C for to 6 months
Datasheets	<u>Instructions for use – KYNA kit, Instructions for use – QA</u> <u>kit</u> Safety datasheet – KYNA kit, Safety datasheet OA kit

Product Data Sheet ISE-0102R

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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	KYNA: Sample derivatization (90 min) QA: Sample acylation (120 min)
ELISA	Antisera overnight incubation, revelation and read steps (1h)
Detailed protocol	Instructions for use – KYNA kit, Instructions for use – QA <u>kit</u>

REFERENCES

Product citations

Product pictures



Kynurenic Acid/Quinolinic Acid ELISA pack

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KYNA and QA along the Kynurenine Pathway

Kynurenic acid (KYNA) and Quinolinic acid (QA) are downstream metabolites produced along the Kynurenine Pathway well-known to possess several neuromodulatory functions, as well as immuno-modulatory properties. Measurement of KYNA and QA in biological samples has been presented as possible biomarkers in several diseases.



Kynureninic Acid/Quinolinic Acid ELISA pack



KYNA / QA ELISA standard curves

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



Measurement of plasma levels of both KYNA and QA in mice treated with KMO inhibitors.

Mice were treated with two selective KMO inhibitors – Ro-618048 & UPF648 – at two different doses each. Plasma samples were collected before treatment and at 1h30 and 6h post-treatment. KYNA and QA levels were then quantified by mean of ELISA (IS-I-0200 and IS-I-0100)

Contact information

Product Data Sheet ISE-0102R

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

https://www.immusmol.com/shop/kynureninic-acid-quinolinic-acid-elisa-pack/