

# Kynurenic acid Polyclonal Antibody

Ref: IS1011

The anti-Kynurenic acid (KYNA) rabbit polyclonal antibody proved to work at **1/2000** dilution on paraffin-embedded tissues, a single vial thus catering for approximately 400 stainings.

<b>Clonality</b>	Polyclonal antibody
<b>Host</b>	Rabbit
<b>Validated applications</b>	<a href="#">IHC</a>
<b>Reactivity</b>	Reacts with all species
<b>References</b>	Not yet cited to our knowledge. Submit content and <a href="#">get a 10% discount!</a>
<b>Format</b>	50µl

## INFORMATIONS

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### Product overview

<b>Product name</b>	Kynurenic acid polyclonal antibody
<b>Synonyms</b>	Kinurenic acid polyclonal antibody 4-Hydroxyquinoline-2-carboxylic acid polyclonal antibody KYNA polyclonal antibody
<b>Immunogen</b>	Conjugated kynurenic acid
<b>Specificity</b>	When tested in competitive ELISA, the anti-Kynurenic polyclonal antibody did not show any significant cross reactivity with Quinaldic and Xanthurenic conjugates
<b>Storage</b>	
<b>Form</b>	Liquid
<b>Purity</b>	Purified anti-serum
<b>Storage</b>	Store at +4°C for short term (1-2 months). Aliquot and store at -20°C for long term. Avoid repeated freeze / thaw cycles
<b>Material safety datasheet</b>	<a href="#">Download MSDS</a>

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## PROTOCOLS

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<b>Immunohistochemistry (IHC)</b>	Dilute at 1:200-1:2000. Perform heat antigen retrieval (pH=6) before initiating IHC staining protocol on paraffin-embedded and frozen sections
<b>Comments</b>	Optimal working dilutions must be determined by the end-user
<b>Restrictions</b>	For research use only

## REFERENCES

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Antibody not yet cited. Submit an article and [get a 10% discount](#).

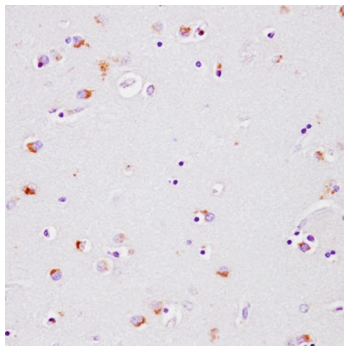
### **Selected articles on Kynurenic acid:**

- [Justinova Z et al. Reducing cannabinoid abuse and preventing relapse by enhancing endogenous brain levels of kynurenic acid. Nat Neurosci. 2013 Nov;16\(11\):1652-61. doi: 10.1038/nn.3540. Epub 2013 Oct 13.](#)
- [Stone TW, Stoy N, Darlington LG. An expanding range of targets for kynurenine metabolites of tryptophan. Trends Pharmacol Sci. 2013 Feb;34\(2\):136-43. doi: 10.1016/j.tips.2012.09.006. Epub 2012 Nov 1.](#)
- [Schwarcz R, Bruno JP, Muchowski PJ, Wu HQ. Kynurenines in the mammalian brain: when physiology meets pathology. Nat Rev Neurosci. 2012 Jul;13\(7\):465-77. doi: 10.1038/nrn3257.](#)
- [Moroni F, Cozzi A, Sili M, Mannaioni G. Kynurenic acid: a metabolite with multiple actions and multiple targets in brain and periphery. J Neural Transm. 2012 Feb;119\(2\):133-9. doi: 10.1007/s00702-011-0763-x. Epub 2012 Jan 4.](#)
- [Linderholm KR et al. Increased levels of kynurenine and kynurenic acid in the CSF of patients with schizophrenia. Schizophr Bull. 2012 May;38\(3\):426-32. doi: 10.1093/schbul/sbq086. Epub 2010 Aug 20.](#)
- [Stone TW, Forrest CM, Darlington LG. Kynurenine pathway inhibition as a therapeutic strategy for neuroprotection. FEBS J. 2012 Apr;279\(8\):1386-97. doi: 10.1111/j.1742-4658.2012.08487.x. Epub 2012 Mar 27.](#)

## Product pictures

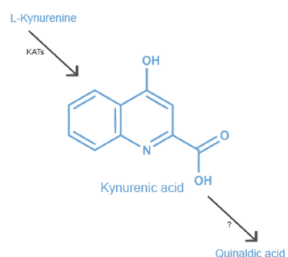
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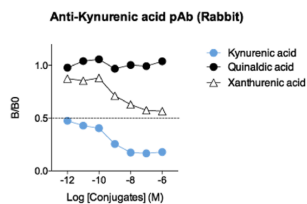
### Kynurenic acid detection in human caudate putamen by IHC

Immunohistochemistry (IHC) reveals kynurenic acid accumulation in the cytoplasm of glial cells in human caudate putamen. Paraffin-embedded brain tissue section was subjected to pH=6 antigen retrieval followed by overnight incubation with the primary anti-kynurenic acid polyclonal antibody (dilution 1/2000). After incubation with polymer-conjugated secondary Ab, DAB was used to visualize the staining.



### Kynurenic acid

Aerobic L-tryptophan degradation via the kynurenine pathway produces a range of neuroactive metabolites, including endogenous neurotoxin quinolinic acid and neuroprotective kynurenic acid. Kynurenic acid indeed possesses several molecular targets with antagonistic activities on the NMDA receptor and the  $\alpha 7$ -nicotinic cholinergic receptor ( $\alpha 7\text{NR}$ ). Recently Kynurenic acid was also described to activate the orphan G-protein-coupled receptor GPR35.



### Affinity & specificity of the Kynurenic acid polyclonal antibody

Competitive ELISA highlights that low amounts of conjugated Kynurenic acid are required to abolish antigen-antibody reaction (high affinity), while rising concentrations of analog conjugates (Quinaldic and Xanthurenic acid) affect only to a lesser extent the reaction (high specificity).

## Contact information

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

<https://www.immusmol.com/shop/kynurenic-acid-pab/>