

Kynurenic acid Antibody – Rabbit Polyclonal

Ref: IS1011

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

Clonality	Polyclonal antibody
Host	Rabbit
Valided applications	IHC
Reactivity	Reacts with all species
References	Not yet cited to our knowledge. Submit content and get a 10% discount!
Format	50µl

INFORMATIONS

Product overview

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

PROTOCOLS

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

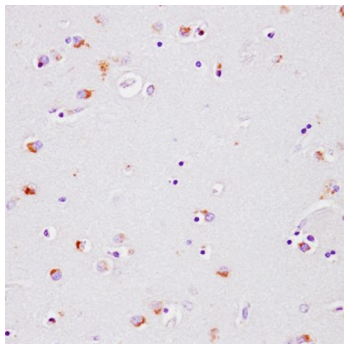
REFERENCES

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Selected articles on Kynurenic acid:

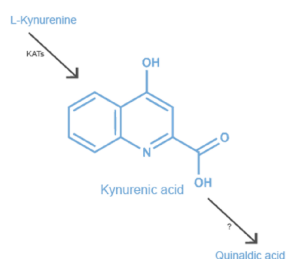
- [Justinova Z et al. Reducing cannabinoid abuse and preventing relapse by enhancing endogenous brain levels of kynurenic acid. Nat Neurosci. 2013 Nov;16\(11\):1652-61. doi: 10.1038/nn.3540. Epub 2013 Oct 13.](#)
- [Stone TW, Stoy N, Darlington LG. An expanding range of targets for kynurenine metabolites 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



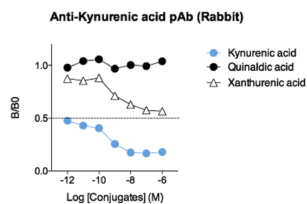
Kynurenic acid detection in human caudate putamen by IHC

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 cholinceptor ($\alpha 7\text{NR}$). Recently Kynurenic 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/>