Xanthurenic acid Antibody – Mouse Monoclonal

Ref: IS009

IS009 was the first anti-Xanthurenic acid antibody made available to the scientific community, back in 2014. This mouse mAb was validated for IHC and IF in human midbrain tissues, highlighting cytoplasmic presence of xanthurenic acid.

Clonality	Monoclonal antibody (clone 6C12-A12)
Host	Mouse
Valided applications	IHC / IF
Reactivity	Reacts with all species
Format	50µL

INFORMATIONS

Product overview

Product name	Xanthurenic acid antibody
Synonyms	Anti- Xanthurenic acid antibody 8-Hydroxy-4-oxo-1H-quinoline-2-carboxylic acid antibody Xanthuric acid antibody Xanthurenate antibody 8-Hydroxykynurenic acid antibody
Immunogen	Conjugated Xanthurenic acid
Clone	clone 6C12-A12
Specificity	When tested in competitive ELISA, the anti-conjugated Xanthurenic acid antibody did not show any significant cross-reactivity with competitors Kynurenic acid and Quinaldic acid conujugates

Storage

Form	Liquid
Purity	Purified IgG
Concentration	0,5mg/ml
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

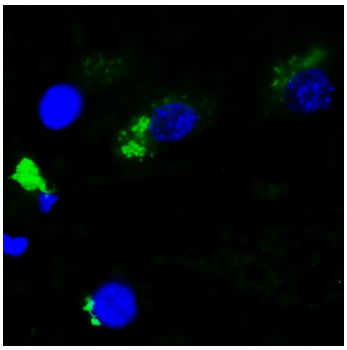
Immunohistochemistry (IHC)	Dilute at 1:200-1:2000. Perform heat antigen retrieval (pH=9) before initiating IHC staining protocol on paraffin-embedded and frozen sections
Immunofluorescence (IF)	Dilute at 1:100-1:1000 on paraffin-embedded and frozen sections. Perform heat antigen retrieval and incubate with fluorescent secondary antibody conjugate
Comments	Optimal working dilutions must be determined by the end-user
Restrictions	For research use only

REFERENCES

Selected publications on Xanthurenic acid

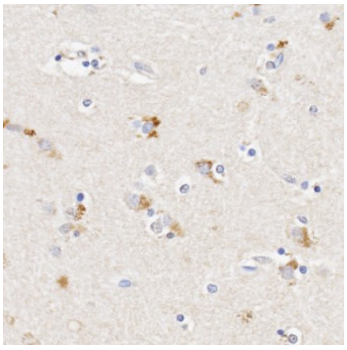
- Neale SA, Copeland CS, Salt TE.Effect of VGLUT inhibitors on glutamatergic synaptic transmission in the rodent hippocampus and prefrontal cortex.Neurochem Int. 2013 Oct 10. pii: S0197-0186(13)00250-7. doi: 10.1016/j.neuint.2013.10.001. [Epub ahead of print]
- Neale SA, Copeland CS, Uebele VN, Thomson FJ, Salt TE. Modulation of hippocampal synaptic transmission by the kynurenine pathway member xanthurenic acid and other VGLUT inhibitors. Neuropsychopharmacology. 2013 May;38(6):1060-7. doi: 10.1038/npp.2013.4. Epub 2013 Jan 7.
- Taleb O, Maammar M, Brumaru D, Bourguignon JJ, Schmitt M, Klein C, Kemmel V, Maitre M, Mensah-Nyagan AG.Xanthurenic acid binds to neuronal G-protein-coupled receptors that secondarily activate cationic channels in the cell line NCB-20.PLoS One. 2012;7(11):e48553. doi: 10.1371/journal.pone.0048553. Epub 2012 Nov 6.
- Copeland CS1, Neale SA, Salt TE.Actions of Xanthurenic acid, a putative endogenous Group II metabotropic glutamate receptor agonist, on sensory transmission in the thalamus.Neuropharmacology. 2013 Mar;66:133-42. doi: 10.1016/j.neuropharm.2012.03.009. Epub 2012 Apr 2.

Product pictures



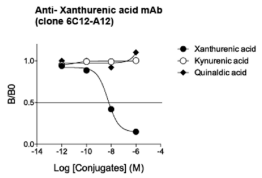
Xanthurenic acid detection by IF in human midbrain

Xanthurenic acid visualization by immunohistofluorescence in human caudate putamen. Staining highlights cytoplasmic accumulation of Xanthurenic acid in brain cells. Paraffin-embedded brain tissue section was subjected to pH=9 antigen retrieval followed by overnight incubation with primary antibody (dilution 1/500). After incubation with Alexa-488 conjugated secondary Ab, epifluorescence microscopy (100X) was used to capture the staining.



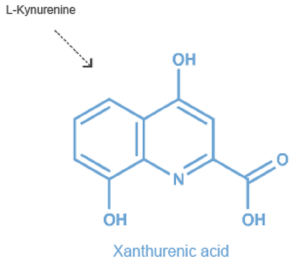
Xanthurenic acid detection by IHC in human midbrain

Immunohistochemical analysis of human brain reveals cytoplasmic accumulation of Xanthurenic acid in brain cells. Paraffin-embedded brain tissue was subjected to pH=9 antigen retrieval followed by overnight incubation with primary anti-Xanthurenic acid (dilution 1/1000). After incubation with polymer-conjugated secondary Ab, staining visualization was performed with DAB.



Affinity & specificity of anti-Xanthurenic acid antibody

Competitive ELISA demonstrates that low amounts of Xanthurenic acid conjugate are required to abolish antigen-antibody reaction (high affinity), while rising concentrations of Kynurenic & Quinaldic acid conjugates do not affect reaction (high specificity).



Xanthurenic acid (XA)

Xanthurenic acid is a downstream metabolite of the kynurenine pathway, synthesized from 3-hydroxy-Kynurenine.

Contact information

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

https://www.immusmol.com/shop/xanthurenic-acid-mab/