3-HAA mouse monoclonal antibody

Ref: IS001

The first and only anti-3-HydroxyAnthranilic acid antibody available for research use. The 5B2-G2 primary mouse monoclonal antibody was validated for IHC both in human tumor and brain tissues. When tested by competitive ELISA, the antibody demonstrated strong affinity and high specificity.

Clonality	Monoclonal antibody (clone 5B2-G2)
Host	Mouse
Validated applications	IHC
Specie reactivity	Reacts with all species
References	Not yet cited to our knowledge Submit content and get a 10% discount!
Format	50µl

Product information

Product overview

Product name	3-Hydroxyanthranilic acid antibody
Synonyms	Anti-3-Hydroxy-Anthranilic acid antibody 2-Amino-3-hydroxybenzoic acid antibody 3-OH-Anthranilic acid antibody 3-hydroxanthranilate antibody 3-OHAA antibody
Immunogen	Conjugated 3-Hydroxyanthranilic acid
Isotype	IgG1 k chain
Clone	Clone 5B2-G2
Specificity	When tested in competitive ELISA, the anti- 3-HydroxyAnthranilic acid antibody did not show any significant cross reactivity with Anthranilic acid or Cinnabarinic acid conjugates
Lot number	140201

Reconstitution & storage

Form	Lyophilized powder
Purity	Purified IgG
Concentration	0,5 mg/ml
Storage	Store at 4°C
Storage buffer	Before use, vial should be resuspended in 50 µL of ultrapure water. Store at +4°C for short term (1-2 weeks). Aliquot and store at -20°C for long term. Avoid repeated freeze / thaw cycles

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
Immunofluorescence (IF)	Dilute at 1:100-1:1000 on paraffin-embedded and frozen sections. Perform heat antigen retrieval and incubate with fluorescent dyes conjugated secondary antibody
Comments	Optimal working dilutions must be determined by the end-user
Restrictions	For research use only

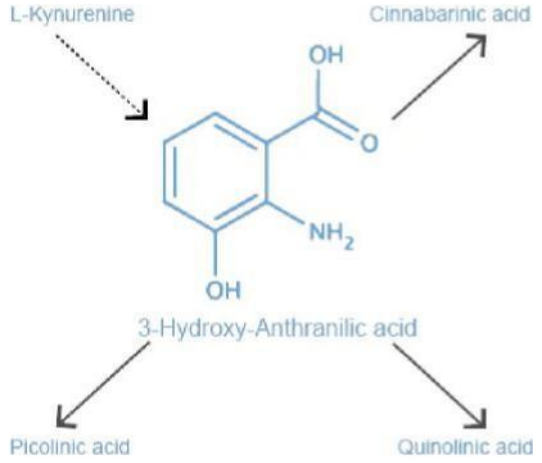
References

Antibody not yet cited. Submit an article and get a 10%discount.

Selected publications on 3-HydroxyAnthranilic acid:

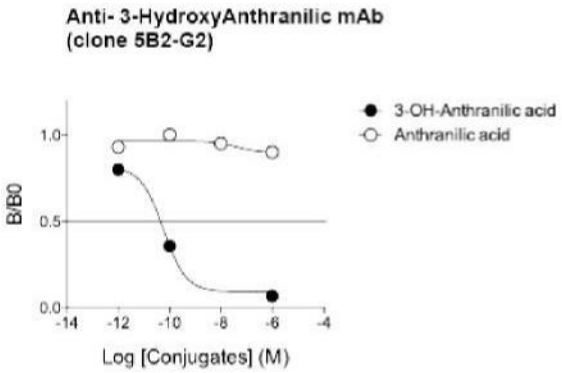
- Lee WS, Lee SM, Kim MK, Park SG, Choi IW, Choi I, Joo YD, Park SJ, Kang SW, Seo SK. Int Immunopharmacol. The tryptophan metabolite 3-hydroxyanthranilic acid suppresses T cell responses by inhibiting dendritic cell activation. 2013 Nov;17(3):721-6. doi: 10.1016/j.intimp.2013.08.018. Epub 2013 Sep 9.
- Adams S, Braidy N, Bessede A, Brew BJ, Grant R, Teo C, Guillemin GJ. The kynurenine pathway in brain tumor pathogenesis. Cancer Res. 2012 Nov 15;72(22):5649-57. doi: 10.1158/0008-5472.CAN-12-0549. Epub 2012 Nov 9.
- Krause D, Suh HS, Tarassishin L, Cui QL, Durafourt BA, Choi N, Bauman A, Cosenza-Nashat M, Antel JP, Zhao ML, Lee SC. The tryptophan metabolite 3-hydroxyanthranilic acid plays anti-inflammatory and neuroprotective roles during inflammation: role of hemeoxygenase-1. Am J Pathol. 2011 Sep;179(3):1360-72. doi: 10.1016/j.ajpath.2011.05.048.
- Yan Y, Zhang GX, Gran B, Fallarino F, Yu S, Li H, Cullimore ML, Rostami A, Xu H. IDO upregulates regulatory T cells via tryptophan catabolite and suppresses encephalitogenic T cell responses in experimental autoimmune encephalomyelitis. J Immunol. 2010 Nov 15;185(10):5953-61. doi: 10.4049/jimmunol.1001628. Epub 2010 Oct 13.
- Hayashi T, Mo JH, Gong X, Rossetto C, Jang A, Beck L, Elliott GI, Kufareva I, Abagyan R, Broide DH, Lee J, Raz E. 3-Hydroxyanthranilic acid inhibits PDK1 activation and suppresses experimental asthma by inducing T cell apoptosis. Proc Natl Acad Sci U S A. 2007 Nov 20;104(47):18619-24. Epub 2007 Nov 14.

Product pictures



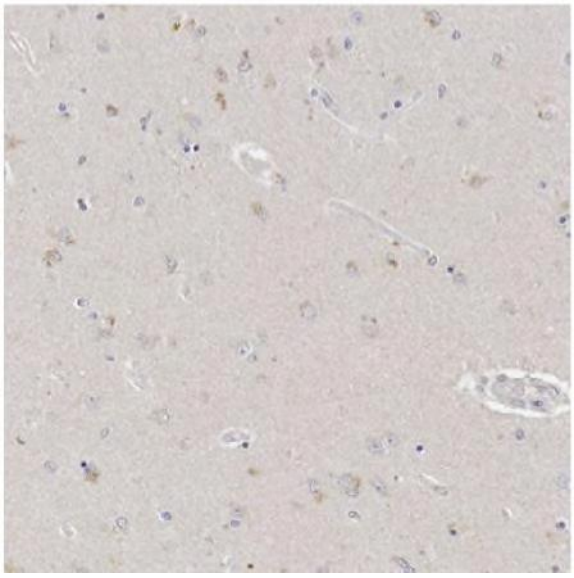
3-Hydroxy-Anthranilic acid

Tryptophan catabolism can be initiated by either indoleamine 2,3 dioxygenase 1 and 2 (IDO1 and IDO2) or the tryptophan 2,3 dioxygenase 2 (TDO2) to produce a series of catabolites collectively known as kynurenines. This pathway has been extensively studied for its immune regulatory functions. The production of 3-hydroxy-Anthranilic acid (3HAA) is thought to play a key role in this phenomenon, with PDK1 being the only molecular target identified. Also, 3HAA has been shown to exert anti-inflammatory effects when administered in an experimental model of multiple sclerosis mice (EAE).



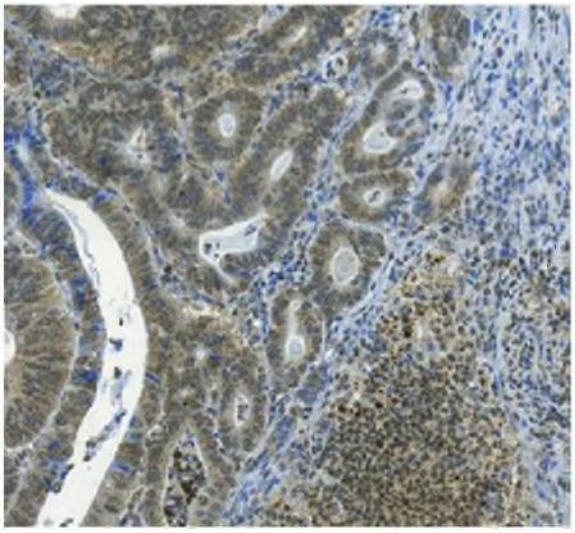
Affinity & specificity of the 3-HydroxyAnthranilic acid antibody

Competitive ELISA demonstrates that low amounts of 3OHAA conjugate are required to abolish antigen-antibody reaction (high affinity), while rising concentrations of Anthranilic Acid conjugate do not affect reaction (high specificity).



IHC validation of 3-HydroxyAnthranilic acid antibody in human brain tissue

Immunohistochemical analysis of human brain tissue highlights the presence of 3-hydroxy-anthranilic acid in glial cells. Paraffin-embedded caudate putamen tissue section was subjected to pH=6 antigen retrieval followed by overnight incubation with primary 3-HydroxyAnthranilic acid antibody (dilution 1/1000). After incubation with polymer-conjugated secondary Ab, DAB was used to reveal the staining.



IHC validation of anti-3-Hydroxy- Anthranilic acid antibody in human colon tumor

IHC staining shows accumulation of 3-hydroxy- **anthranilic acid in human colon cancer cells, as well as in cells from the tumoral** microenvironment. Human paraffin-**embedded colon tumor tissue was subjected to pH=6 antigen retrieval, and overnight incubation with primary 3**-Hydroxy-Anthranilic a**cid antibody (1/1000 dilution).** After polymer-**conjugated secondary antibody exposure, staining was observed through DAB** coloration.

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