

HAAO Antibody

Catalog # ASC10937

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P46952
Other Accession	NP_036337 , 188497625
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	32556
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	HAAO antibody can be used for detection of HAAO by Western blot at 1 μ g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	23498
Other Names	3-hydroxyanthranilate 3, 4-dioxygenase {ECO:0000255 HAMAP-Rule:MF_03019}, 1.13.11.6 {ECO:0000255 HAMAP-Rule:MF_03019}, 3-hydroxyanthranilate oxygenase {ECO:0000255 HAMAP-Rule:MF_03019}, 3-HAO {ECO:0000255 HAMAP-Rule:MF_03019}, 3-hydroxyanthranilic acid dioxygenase {ECO:0000255 HAMAP-Rule:MF_03019}, HAD {ECO:0000255 HAMAP-Rule:MF_03019}, HAAO {ECO:0000255 HAMAP-Rule:MF_03019}
Target/Specificity	HAAO;
Reconstitution & Storage	HAAO antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	HAAO Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HAAO {ECO:0000255 HAMAP-Rule:MF_03019, ECO:0000312 HGNC:HGNC:4796}
Function	Catalyzes the oxidative ring opening of 3-hydroxyanthranilate to 2-amino-3-carboxymuconate semialdehyde, which spontaneously cyclizes to

quinolinate.

Cellular Location

Cytoplasm, cytosol.

Background

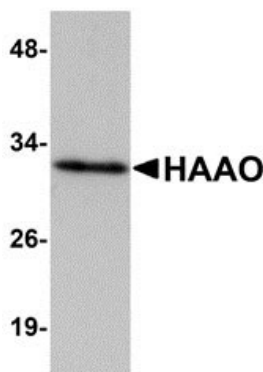
HAAO Antibody: HAAO (3-Hydroxyanthranilate 3, 4-dioxygenase) is a monomeric cytosolic protein of the family of intramolecular dioxygenases containing non-heme ferrous iron. It is widely distributed in peripheral organs, such as liver and kidney, and is present in low amounts in the central nervous system. This enzyme participates in tryptophan metabolism. It employs one cofactor, iron. HAAO catalyzes the synthesis of quinolinic acid (QUIN) from 3-hydroxyanthranilic acid. QUIN is an excitotoxin whose toxicity is mediated by its ability to activate glutamate N-methyl-D-aspartate receptors. Increased cerebral levels of QUIN may participate in the pathogenesis of neurological and inflammatory disorders. HAAO has been suggested to play a role in disorders associated with altered tissue levels of QUIN. Furthermore, recent study shows that HAAO are excellent candidate biomarkers for detecting ovarian cancer.

References

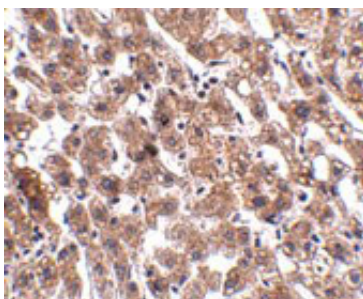
Decker RH, Kang HH, Leach FR, et al. Purification and properties of 3-hydroxyanthranilic acid oxidase. J. Biol. Chem.1961; 236:3076-82.

Huang YW, Jansen RA, Fabbri E, et al. Identification of candidate epigenetic biomarkers for ovarian cancer detection. Oncol. Rep.2009; 22:853-61.

Images

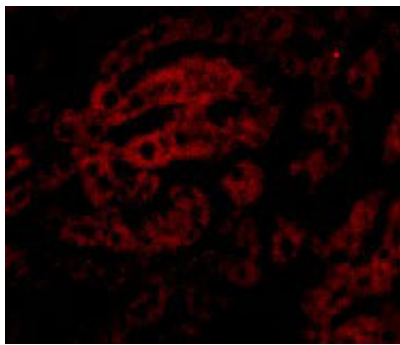


Western blot analysis of HAAO in Mouse liver tissue lysate with HAAO antibody at 1 µg/mL.



Immunohistochemistry of HAAO in human liver tissue with HAAO antibody at 2.5 µg/mL.

Immunofluorescence of HAAO in Human Liver cells with HAAO antibody at 20 µg/mL.



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