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Goat Anti-AOC3 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1067a

Specification

Goat Anti-AOC3 Antibody - Product Information

Application	**IHC, E**
Primary Accession	Q16853
Other Accession	NP_003725, 8639, 11754 (mouse), 29473 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**84622**

Goat Anti-AOC3 Antibody - Additional Information

Gene ID 8639

Other Names
Membrane primary amine oxidase, 1.4.3.21, Copper amine oxidase, HPAO, Semicarbazide-sensitive amine oxidase, SSAO, Vascular adhesion protein 1, VAP-1, AOC3, VAP1

Dilution
IHC~~1:100~500
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-AOC3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-AOC3 Antibody - Protein Information

Name AOC3 (HGNC:550)

Synonyms VAP1

Function
Catalyzes the oxidative deamination of primary amines to the corresponding aldehydes with the concomitant production of hydrogen peroxide and ammonia (PubMed:19588076, PubMed:24304424, PubMed:9653080). Has a preference for the primary monoamines methylamine and benzylamine (PubMed:19588076, PubMed:9653080). Could also act on 2-phenylethylamine but much less efficiently (PubMed:19588076). At endothelial cells surface can also function as a cell adhesion protein that participates in lymphocyte extravasation and recirculation by mediating the binding of lymphocytes to peripheral lymph node vascular endothelial cells in an L-selectin-independent fashion (PubMed:9254657, PubMed:9653080).

Cellular Location
Cell membrane; Single-pass type II membrane protein

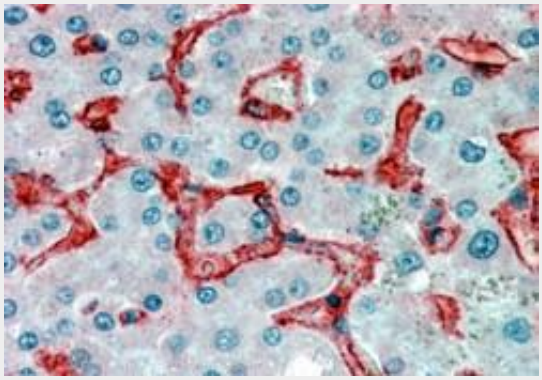
Tissue Location
Strongly expressed on the high endothelial venules of peripheral lymph nodes and on hepatic endothelia. Also highly expressed in appendix, lung and small intestine. Expressed also in adipose tissue, in bone marrow, colon, heart, kidney, ovary, pancreas, placenta, prostate, skeletal muscle, spleen and testis. Isoform 2 seems to be the predominant transcript in fetal kidneys, fetal cartilage and fetal tonsils. The highest relative expression of isoform 2 occurs in skeletal muscle, heart, pancreas, kidney, and lung

Goat Anti-AOC3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-AOC3 Antibody - Images



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AF1067a (3.8 µg/ml) staining of paraffin embedded Human Liver. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

Goat Anti-AOC3 Antibody - Background

Copper amine oxidases catalyze the oxidative conversion of amines to aldehydes in the presence of copper and quinone cofactor. The product is a major protein on the adipocyte plasma membrane. It has adhesive properties and also has functional monoamine oxidase activity. A pseudogene for this gene has been discribed and is located approximately 9-kb downstream.

Goat Anti-AOC3 Antibody - References

CX(3)CR1 and vascular adhesion protein-1-dependent recruitment of CD16(+) monocytes across human liver sinusoidal endothelium. Aspinall AI, et al. Hepatology, 2010 Jun. PMID 20512991.
Changes in the activities of semicarbazide-sensitive amine oxidase in inferior mesenteric artery segments and in serum of patients with type 2 diabetes. Nunes SF, et al. Acta Diabetol, 2010 Jun. PMID 20063021.
Human Siglec-10 can bind to vascular adhesion protein-1 and serves as its substrate. Kivi E, et al. Blood, 2009 Dec 17. PMID 19861682.
Monoamine oxidase and semicarbazide sensitive amine oxidase activities in normal and inflamed human dental pulp. Vavilova T, et al. Med Sci Monit, 2009 Oct. PMID 19789505.
Localization of vascular adhesion protein-1 (VAP-1) in the human eye. Almulki L, et al. Exp Eye Res, 2010 Jan. PMID 19761765.