10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

AOC3 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8538c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q16853
Reactivity	Human, Rat, Mouse
Predicted	Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB22029
Calculated MW	84622
Antigen Region	613-640

Additional Information

Gene ID	8639
Other Names	Membrane primary amine oxidase, Copper amine oxidase, HPAO, Semicarbazide-sensitive amine oxidase, SSAO, Vascular adhesion protein 1, VAP-1, AOC3, VAP1
Target/Specificity	This AOC3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 613-640 amino acids from the Central region of human AOC3.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	AOC3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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

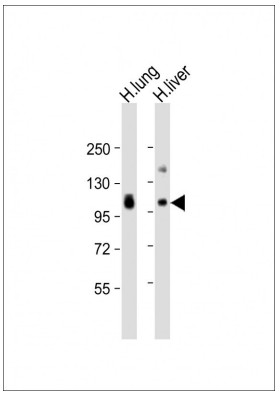
Background

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.

References

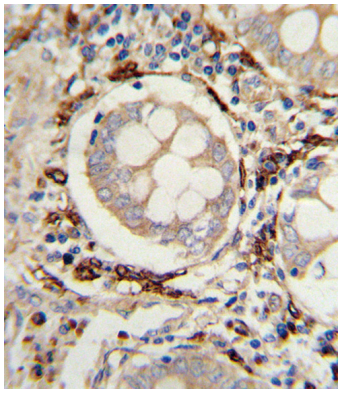
Lalor,P.F., et.al., J. Immunol. 169 (2), 983-992 (2002)
Salmi,M., et.al., Am. J. Pathol. 161 (6), 2255-2262 (2002)

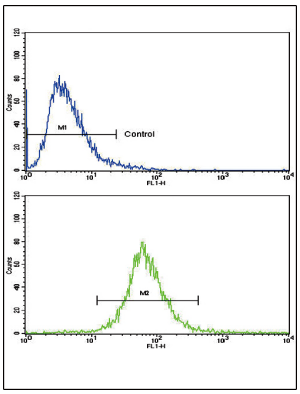
Images



All lanes : Anti-AOC3 Antibody (Center) at 1:2000 dilution Lane 1: human lung lysate Lane 2: human liver lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 85 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Formalin-fixed and paraffin-embedded human colon carcinoma with AOC3 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.





Flow cytometric analysis of CEM cells using AOC3 Antibody (Center)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.