

Datasheet for ABIN2192061

## anti-AOC3 antibody



[Go to Product page](#)

1 Image

2 Publications

### Overview

Quantity:	100 µg
Target:	AOC3
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This AOC3 antibody is un-conjugated
Application:	Flow Cytometry (FACS), Immunohistochemistry (Frozen Sections) (IHC (fro)), Functional Studies (Func)

### Product Details

Clone:	174-5
Isotype:	IgG1
Cross-Reactivity (Details):	Cross reactivity: Rat : Yes
Sterility:	0.2 µm filtered

### Target Details

Target:	AOC3
Alternative Name:	Vascular Adhesion Protein-1 ( <a href="#">AOC3 Products</a> )
Background:	The monoclonal antibody 174-5 recognises human Vascular Adhesion Protein-1 (VAP-1), which is a glycosylated homodimeric membrane protein consisting of two 90 kDa subunits connected by disulfide bonds. It contains a short N-terminal cytoplasmic tail, a single membrane-spanning

## Target Details

domain and a large extracellular part. A soluble form of VAP-1 (sVAP-1) has been described, which presumably results from the proteolytic cleavage of membrane-bound VAP-1. Structurally VAP-1 belongs to enzymes called semicarbazide-sensitive amine oxidases, which contain copper as a cofactor. These enzymes deaminate primary amines in a reaction producing hydrogen peroxide, aldehyde, and ammonia. VAP-1 is present in endothelial cells, smooth muscle cells, adipocytes, and in follicular dendritic cells. In endothelial cells the majority of VAP-1 is stored within intracellular granules and translocated to the surface upon inflammation where it regulates leukocyte tissue infiltration. Furthermore, the end-products formed by VAP-1 can also regulate leukocyte migration by signaling effects, have insulin-like effects in energy metabolism, and can cause vascular damage by direct cytotoxicity. Elevated sVAP-1 serum levels have been described in several inflammatory diseases as well as colorectal cancer. Moreover, diminished insulin secretion appears to increase the concentration of soluble VAP-1 in plasma. Therefore, VAP-1 might be an interesting diagnostic marker as well therapeutic target for modulating inflammation. The monoclonal antibody 174-5 has been shown to cross-react with rat VAP-1 and to inhibit lymphocyte infiltration in rat liver allograft rejection. Aliases membrane primary amine oxidase, AOC3, SSAO Immunogen Purified vessels from human peripheral lymph nodes (ref 1)

Pathways: [Feeding Behaviour](#)

## Application Details

Application Notes: For immunohistochemistry and flow cytometry, dilutions to be used depend on detection system chemistry, , applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50. For functional studies, in vitro dilutions have to be optimized in user's experimental setting. Positive Ax cells stably transfected with VAP-1 cDNA. (Ref. 1) VAP control Negative Mock transfected Ax cells. (Ref. 1) control

Restrictions: For Research Use only

## Handling

Buffer: PBS, containing 0.1 % bovine serum albumin.

Storage: 4 °C

Storage Comment: Product should be stored at 4 °C. Under recommended storage conditions, product is stable for at least one year. The exact expiry date is indicated on the label.

## Publications

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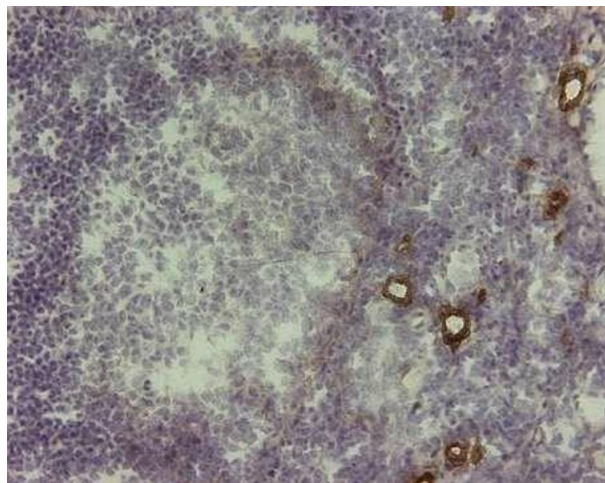
Product cited in:

Autio, Ujula, Luoto, Salomäki, Jalkanen, Roivainen: "PET imaging of inflammation and adenocarcinoma xenografts using vascular adhesion protein 1 targeting peptide 68Ga-DOTAVAP-P1: comparison with 18F-FDG." in: **European journal of nuclear medicine and molecular imaging**, Vol. 37, Issue 10, pp. 1918-25, (2010) ([PubMed](#)).

Martelius, Salaspuro, Salmi, Krogerus, Höckerstedt, Jalkanen, Lautenschlager: "Blockade of vascular adhesion protein-1 inhibits lymphocyte infiltration in rat liver allograft rejection." in: **The American journal of pathology**, Vol. 165, Issue 6, pp. 1993-2001, (2004) ([PubMed](#)).

## Images

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### Immunohistochemistry

**Image 1.** Immunohistochemical analysis of VAP-1 on human tonsil tissue. Staining of frozen tissue section with antibody 174-5. Anti-human VAP-1 staining results in vessels that are VAP-1 positive, whereas morphologically similar vessels next to positive ones can be negative.