

CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	VAP-1, Mouse, clone 7-88		
Catalog number	HM1094-20UG		
Lot number	-	Expiry date	-
Volume	200 µl	Amount	20 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA	Concentration	100 µg/ml
Host Species	Rat IgG2b	Conjugate	None
Endotoxin	N.A.	Purification	Protein G
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS*	IA	IP	W
Reference #	2,3		5	2	2,4		1	
Yes	•		•	•	•		•	
No								
N.D.		•				•		•

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot

*If you are interested to use this antibody for functional studies, please contact us for bulk and low endotoxin opportunities.



IHC-F: VAP-1 expression in mouse muscle tissue; frozen sections.

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- FC: Antibody 7-88 stains the extracellular domain of mouse VAP-1 in CHO cells transfected with mouse VAP-1 cDNA. . As positive control anti-VAP-1 clone 7-106 was used and as negative control an isotype-matched control antibody. (Ref. 2)
- IHC-F: Tissue sections were fixed in acetone and incubated with antibody 7-88 for 20 minutes at room temperature. . As negative control an irrelevant isotype-matched antibody was used (Ref.2).
- FS: Antibody 7-88 (200µg) was intravenously injected which resulted in the inhibition of leukocyte trafficking in inflamed peritoneum. (Ref.2).
- Positive control: Mouse VAP-1-transfected CHO cells (ref. 2); Negative control: Mock-transfected CHO cells (Ref. 2)

General Information
Description

The monoclonal antibody 7-88 recognizes mouse 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 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 expressed 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.

In white adipose tissue of obese and diabetic db^{-/-} mice increased expression of VAP-1 has been observed suggesting that it contributes to the atherosclerosis and vascular dysfunction observed in these diseases. Moreover, inhibition of VAP-1 reduced the accumulation of myeloid cells into tumors and attenuates tumor growth. The monoclonal antibody 7-88 inhibits migration of granulocytes and monocytes in acute models of inflammation.

Immunogen	Vessels from mouse lymph nodes
Aliases	Amine oxidase copper containing 3; AOC3; SSAO; membrane copper amine oxidase; Vascular adhesion Protein-1
References	<ol style="list-style-type: none">1. Abella, A et al; Adipocytes release a soluble form of VAP-1/SSAO by a metalloprotease-dependent process and in a regulated manner. <i>Diabetologia</i> 2004, <i>47</i>: 4292. Merinen, M et al; Vascular adhesion protein-1 is involved in both acute and chronic inflammation in the mouse. <i>Am J Path</i> 2005, <i>166</i>: 7933. Bonder, C et al; Rules of recruitment for Th1 and Th2 lymphocytes in inflamed liver: a role for alpha-4 integrin and vascular adhesion protein-1. <i>Immunity</i> 2005, <i>23</i>: 1534. Marttila-Ichihara, F et al; Small-molecule inhibitors of vascular adhesion protein-1 reduce the accumulation of myeloid cells into tumors and attenuate tumor growth in mice. <i>J Immunol</i> 2010, <i>184</i>: 31645. Iffiu-Soltész, Z et al; Increased primary amine oxidase expression and activity in white adipose tissue of obese and diabetic db^{-/-} mice. <i>J Neural Transm</i> 2011, DOI: 10.1007/s00702-011-0586-9
Storage&stability	Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.
Precautions	For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC
Brenda Teunissen

Date
11/11/2020

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.