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

phospho-VAV3 (Tyr141) Rabbit pAb

Catalog # AP100201

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9UKW4
Other Accession	Q9UKW4
Reactivity	Rat, Mouse
Predicted	Human, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	97776
Physical State	Liquid
Immunogen	KLH conjugated Synthesised phosphopeptide derived from human VAV3 around the phosphorylation site of Tyr141
Epitope Specificity	DI(p-Y)KG
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 CH (calponin-homology) domain.Contains 1 DH (DBL-homology) domain.Contains 1 PH domain. Contains 1 phorbol-ester/DAG-type zinc finger. Contains 1 SH2 domain. Contains 2 SH3 domains.
SUBUNIT	Interacts with the PH domain of APS. Interacts (via SH2 domains) with the phosphorylated form of EPHA2. Interacts with ROS1; constitutive interaction that mediates VAV3 phosphorylation.
Post-translational modifications	Phosphorylated. Phosphorylation can be mediated by ROS1. In osteoclasts, undergoes tyrosine phosphorylation in response to CSF1 (By similarity).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a member of the CD1 family of transmembrane glycoproteins, which are structurally related to the major histocompatibility complex (MHC) proteins and form heterodimers with beta-2-microglobulin. The CD1 proteins mediate the presentation of primarily lipid and glycolipid antigens of self or microbial origin to T cells. The human genome contains five CD1 family genes organized in a cluster on chromosome 1. The CD1 family members are thought to differ in their cellular localization and specificity for particular lipid ligands. The protein encoded by this gene is broadly distributed throughout the endocytic system via a tyrosine-based motif in the cytoplasmic tail. Alternatively spliced transcript variants of this gene have been observed, but their full-length nature is not known. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	10451
Other Names	A530094I06Rik; Idd18.1; VAV3_HUMAN; VAV3; VAV-3; VAV3_MOUSE; vav

	guanine nucleotide exchange factor 3; vav 3 oncogene; vav 3 guanine nucleotide exchange factor; VAV3 (phospho-Y141); p-VAV3; phospho-VAV3; VAV3 (phospho-Tyr141)
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	VAV3
Function	Exchange factor for GTP-binding proteins RhoA, RhoG and, to a lesser extent, Rac1. Binds physically to the nucleotide-free states of those GTPases. Plays an important role in angiogenesis. Its recruitment by phosphorylated EPHA2 is critical for EFNA1-induced RAC1 GTPase activation and vascular endothelial cell migration and assembly (By similarity). May be important for integrin-mediated signaling, at least in some cell types. In osteoclasts, along with SYK tyrosine kinase, required for signaling through integrin alpha-v/beta-1 (ITAGV-ITGB1), a crucial event for osteoclast proper cytoskeleton organization and function. This signaling pathway involves RAC1, but not RHO, activation. Necessary for proper wound healing. In the course of wound healing, required for the phagocytotic cup formation preceding macrophage phagocytosis of apoptotic neutrophils. Responsible for integrin beta-2 (ITGB2)-mediated macrophage adhesion and, to a lesser extent, contributes to beta-3 (ITGB3)-mediated adhesion. Does not affect integrin beta-1 (ITGB1)-mediated adhesion (By similarity).
Tissue Location	Isoform 1 and isoform 3 are widely expressed; both are expressed at very low levels in skeletal muscle. In keratinocytes, isoform 1 is less abundant than isoform 3. Isoform 3 is detected at very low levels, if any, in adrenal gland, bone marrow, spleen, fetal brain and spinal cord; in these tissues, isoform 1 is readily detectable.

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