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

DVL1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5629

Product Information

Application	IF, WB
Primary Accession	O14640
Other Accession	P51141, Q5IS48, Q9WVB9, P54792
Reactivity	Human, Mouse
Predicted	Monkey, Dog, Chicken
Host	Rabbit
Clonality	Polyclonal
Calculated MW	75187
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	1855
Antigen Region	442-470
Other Names	Segment polarity protein dishevelled homolog DVL-1, Dishevelled-1, DSH homolog 1, DVL1
Dilution	IF~~1:25 WB~~1:2000
Target/Specificity	This DVL1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 442-470 amino acids from the Central region of human DVL1.
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	DVL1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DVL1
Function	Participates in Wnt signaling by binding to the cytoplasmic C-terminus of

frizzled family members and transducing the Wnt signal to down-stream effectors. Plays a role both in canonical and non-canonical Wnt signaling. Plays a role in the signal transduction pathways mediated by multiple Wnt genes. Required for LEF1 activation upon WNT1 and WNT3A signaling. DVL1 and PAK1 form a ternary complex with MUSK which is important for MUSK-dependent regulation of AChR clustering during the formation of the neuromuscular junction (NMJ).

Cellular Location

Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasm, cytosol. Cytoplasmic vesicle Note=Localizes at the cell membrane upon interaction with frizzled family members.

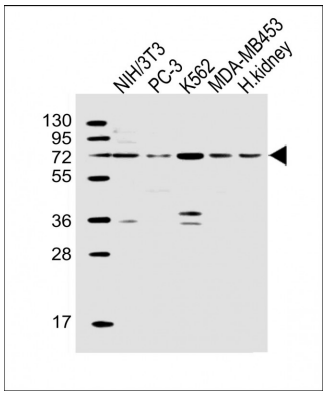
Background

DVL1, the human homolog of the Drosophila dishevelled gene (dsh) encodes a cytoplasmic phosphoprotein that regulates cell proliferation, acting as a transducer molecule for developmental processes, including segmentation and neuroblast specification. DVL1 is a candidate gene for neuroblastomatous transformation. The Schwartz-Jampel syndrome and Charcot-Marie-Tooth disease type 2A have been mapped to the same region as DVL1. The phenotypes of these diseases may be consistent with defects which might be expected from aberrant expression of a DVL gene during development.

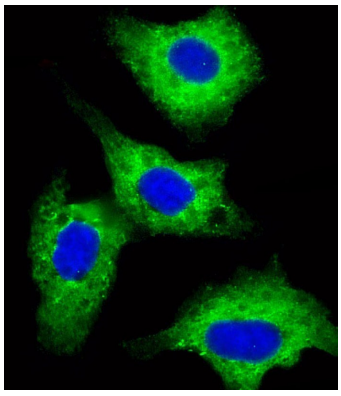
References

Metcalfe, C., et al. J. Cell. Sci. 123 (PT 9), 1588-1599 (2010) :
Hu, T., et al. J. Biol. Chem. 285(18):13561-13568(2010)
Varelas, X., et al. Dev. Cell 18(4):579-591(2010)
Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :
Guo, J., et al. PLoS ONE 4 (11), E7982 (2009) :

Images



All lanes : Anti-DVL1 Antibody (Center) at 1:2000 dilution Lane 1: NIH/3T3 whole cell lysate Lane 2: PC-3 whole cell lysate Lane 3: K562 whole cell lysate Lane 4: MDA-MB453 whole cell lysate Lane 5: human kidney lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 75 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0. 1% Triton X-100 permeabilized HepG2 (human liver hepatocellular carcinoma cell line) cells labeling Pdx1 with AP12326C at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (NK179883) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm staining on HepG2 cell line. The nuclear counter stain is DAPI (blue).

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