10320 Camino Santa Fe, Suite G
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DVL1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12326C

Specification

DVL1 Antibody (Center) - Product Information

Application	**IF, WB, IHC-P,E**
Primary Accession	O14640
Other Accession	P54792, Q9WVB9, P51141, NP_004412.2
Reactivity	**Human, Mouse**
Predicted	**Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**442-470**

DVL1 Antibody (Center) - Additional Information

Gene ID 1855

Other Names
Segment polarity protein dishevelled homolog DVL-1, Dishevelled-1, DSH homolog 1, DVL1

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.

Dilution
IF~~1:25
WB~~1:1000
IHC-P~~1:25

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.

DVL1 Antibody (Center) - 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).

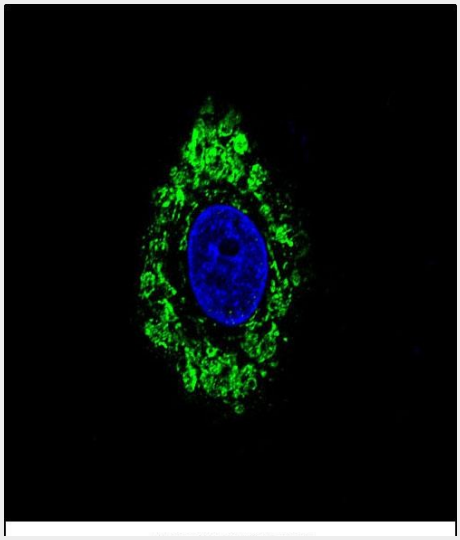
Cellular Location
Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasm, cytosol. Cytoplasmic vesicle Note=Localizes at the cell membrane upon interaction with frizzled family members.

DVL1 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

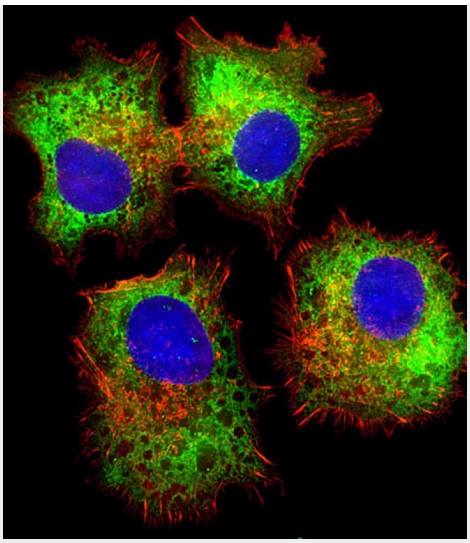
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

DVL1 Antibody (Center) - Images

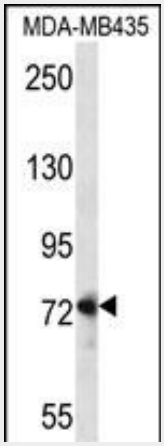


Confocal immunofluorescent analysis of DVL1 Antibody (Center) (Cat#AP12326c) with HepG2 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).

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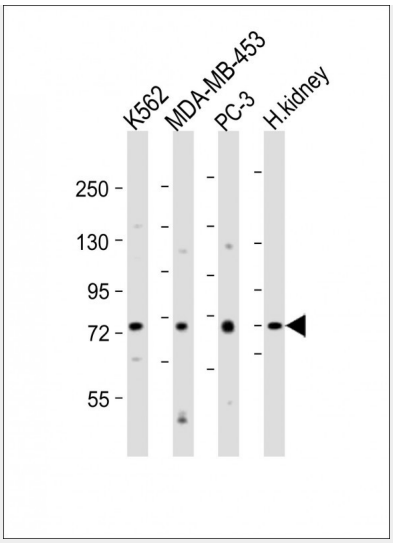


Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HepG2 (human liver hepatocellular carcinoma cell line) cells labeling DVL1 with AP12326c at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (NK179883) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm staining on HepG2 cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (PD18466410) at 1/100 dilution (red).The nuclear counter stain is DAPI (blue).

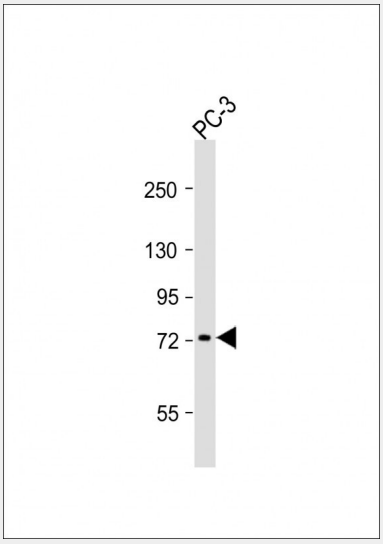


DVL1 Antibody (Center) (Cat. #AP12326c) western blot analysis in MDA-MB435 cell line lysates (35ug/lane).This demonstrates the DVL1 antibody detected the DVL1 protein (arrow).

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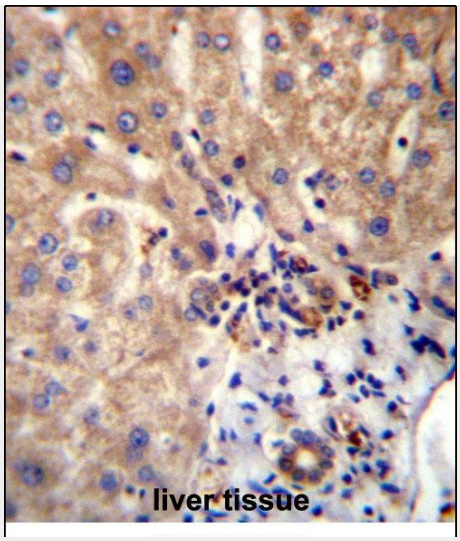


All lanes : Anti-DVL1 Antibody (Center) at 1:2000 dilution Lane 1: K562 whole cell lysates Lane 2: MDA-MB-453 whole cell lysates Lane 3: PC-3 whole cell lysates Lane 4: human kidney lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 75 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

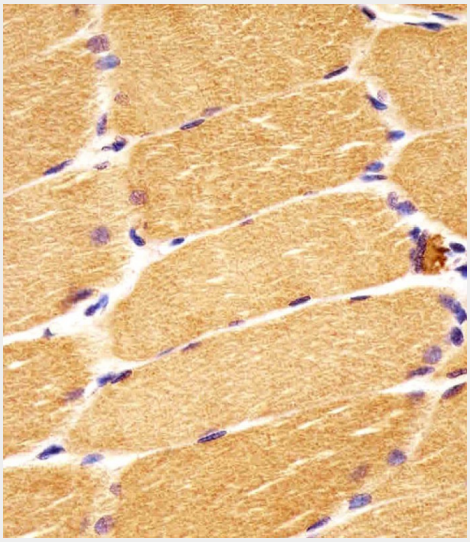


Anti-DVL1 Antibody (Center)at 1:1000 dilution + PC-3 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 75 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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DVL1 Antibdy (Center) (Cat. #AP12326c)immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of DVL1 Antibdy (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



AP12326c staining DVL1 in human skeletal muscle sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

DVL1 Antibody (Center) - 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.

DVL1 Antibody (Center) - 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) :

DVL1 Antibody (Center) - Citations

- Mutations in DVL1 cause an osteosclerotic form of Robinow syndrome.