

**Anti-DVL1 Picoband Antibody**  
**Catalog # ABO10290****Specification**

---

**Anti-DVL1 Picoband Antibody - Product Information**

Application	WB, IHC-P
Primary Accession	<a href="#">O14640</a>
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Segment polarity protein dishevelled homolog DVL-1(DVL1) detection. Tested with WB, IHC-P in Human;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-DVL1 Picoband Antibody - Additional Information**

**Gene ID** 1855

**Other Names**

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

**Calculated MW**

75187 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat<br><br>Western blot, 0.1-0.5 µg/ml, Rat, Human<br>

**Subcellular Localization**

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

**Protein Name**

Segment polarity protein dishevelled homolog DVL-1

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence in the middle region of human DVL1 (401-438aa APQLEEAPLTVKSDMSAVVRVMQLPDSGLEIRDRMWLK), different from the related mouse and rat sequences by one amino acid.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Anti-DVL1 Picoband Antibody - 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).

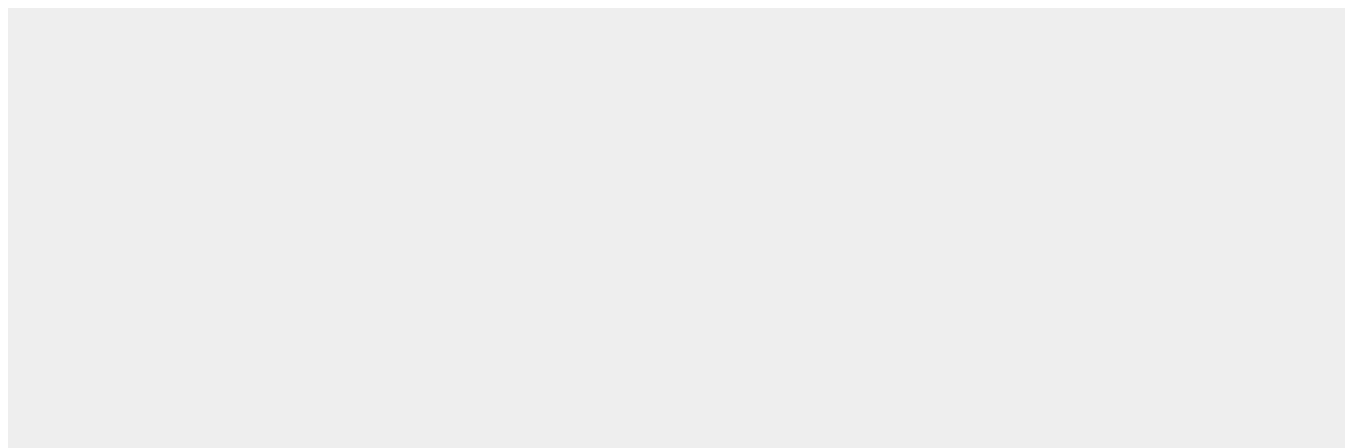
**Cellular Location**

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

**Anti-DVL1 Picoband Antibody - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-DVL1 Picoband Antibody - Images**

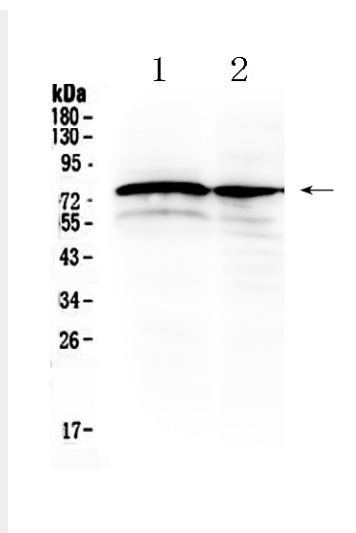


Figure 1. Western blot analysis of DVL1 using anti- DVL1 antibody (ABO10290). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat brain tissue lysates, Lane 2: rat testis tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- DVL1 antigen affinity purified polyclonal antibody (Catalog # ABO10290) at 0.5  $\mu$ g/mL overnight at 4 $^{\circ}$ C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for DVL1 at approximately 75KD. The expected band size for DVL1 is at 75KD.

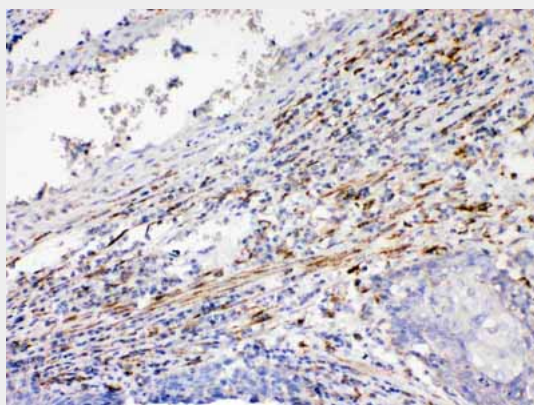


Figure 2. IHC analysis of DVL1 using anti- DVL1 antibody (ABO10290).DVL1 was detected in paraffin-embedded section of human lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 $\mu$ g/ml rabbit anti-DVL1 Antibody (ABO10290) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

#### Anti-DVL1 Picoband Antibody - Background

Segment polarity protein dishevelled homolog DVL-1 is a protein that in humans is encoded by the DVL1 gene. 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.