

### **ROR1 Antibody**

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP7671D

### **Specification**

### **ROR1 Antibody - Product Information**

Application
Primary Accession
Reactivity
Host
Clonality
Isotype

IHC-P, WB, FC,E
001973
Human, Mouse
Rabbit
Polyclonal
Rabbit IgG

# **ROR1 Antibody - Additional Information**

### **Gene ID 4919**

#### **Other Names**

Tyrosine-protein kinase transmembrane receptor ROR1, Neurotrophic tyrosine kinase, receptor-related 1, ROR1, NTRKR1

### Target/Specificity

This ROR1 antibody is generated from rabbits immunized with recombinant human ROR1 protein (aa region: 112 - 399).

#### **Dilution**

IHC-P~~1:100 WB~~1:4000 FC~~1:25

E~~Use at an assay dependent concentration.

### **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**

ROR1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### **ROR1 Antibody - Protein Information**

## Name ROR1

### Synonyms NTRKR1



**Function** Has very low kinase activity in vitro and is unlikely to function as a tyrosine kinase in vivo (PubMed:25029443). Receptor for ligand WNT5A which activate downstream NFkB signaling pathway and may result in the inhibition of WNT3A-mediated signaling (PubMed:25029443, PubMed:27162350). In inner ear, crucial for spiral ganglion neurons to innervate auditory hair cells (PubMed:27162350). Via IGFBP5 ligand, forms a complex with ERBB2 to enhance CREB oncogenic signaling (PubMed:36949068).

### **Cellular Location**

Membrane; Single- pass type I membrane protein. Cell projection, axon {ECO:0000250|UniProtKB:Q9Z139}

#### **Tissue Location**

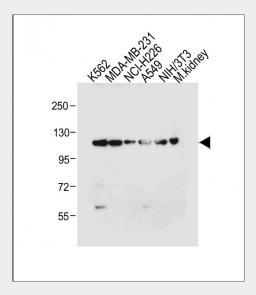
Expressed strongly in human heart, lung and kidney, but weakly in the CNS. Isoform Short is strongly expressed in fetal and adult CNS and in a variety of human cancers, including those originating from CNS or PNS neuroectoderm

#### **ROR1 Antibody - Protocols**

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

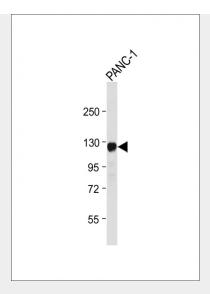
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

#### **ROR1 Antibody - Images**



All lanes: Anti-ROR1 Antibody at 1:4000 dilution Lane 1: K562 whole cell lysate Lane 2: MDA-MB-231 whole cell lysate Lane 3: NCI-H226 whole cell lysate Lane 4: A549 whole cell lysate Lane 5: NIH/3T3 whole cell lysate Lane 6: Mouse kidney tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 104 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



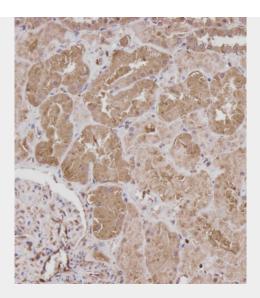


Anti-ROR1 Antibody at 1:4000 dilution + PANC-1 whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 104 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

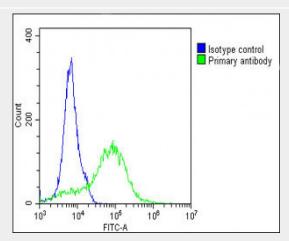


Immunohistochemical analysis of AP7671d on paraffin-embedded Human heart tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.





Immunohistochemical analysis of AP7671d on paraffin-embedded Human kidney tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Overlay histogram showing A549 cells stained with AP7671d(green line). The cells were fixed with 2% paraformaldehyde (10 min). The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP7671d, 1:25 dilution) for 60 min at 37 $^{\circ}$ C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OH191631) at 1/200 dilution for 40 min at 37 $^{\circ}$ C. Isotype control antibody (blue line) was rabbit IgG1 (1 $\mu$ g/1x10 $^{\circ}$ 6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

# **ROR1 Antibody - Background**

ROR1 is a receptor protein tyrosine kinase whose cellular role has not been determined. It is a type I membrane protein and belongs to the ROR subfamily of cell surface receptors. Studies of a similar protein in mouse suggest that this protein may interact with another receptor protein tyrosine kinase and may be involved in skeletal and cardiac development.

## **ROR1 Antibody - References**

Nomi, M., et al., Mol. Cell. Biol. 21(24):8329-8335 (2001). Reddy, U.R., et al., Genomics 41(2):283-285 (1997).







Reddy, U.R., et al., Oncogene 13(7):1555-1559 (1996). Masiakowski, P., et al., J. Biol. Chem. 267(36):26181-26190 (1992).

**ROR1 Antibody - Citations** 

• Frizzled 1 and Wnt1 as new potential therapeutic targets in the traumatically injured spinal cord