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ROR1 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7671D

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q01973
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	104283

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	WB~~1:1000 IHC-P~~1:100~500 FC~~1:25 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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.

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 activates downstream NFkB signaling pathway and may result in the inhibition of WNT3A-mediated signaling (PubMed:25029443, PubMed:27162350). In the 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	Cell 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

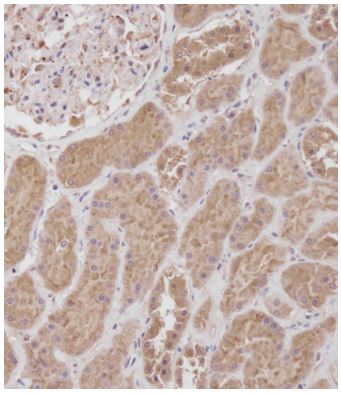
Background

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.

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).

Images

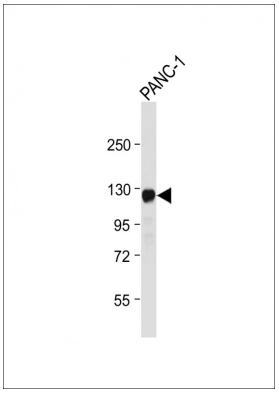


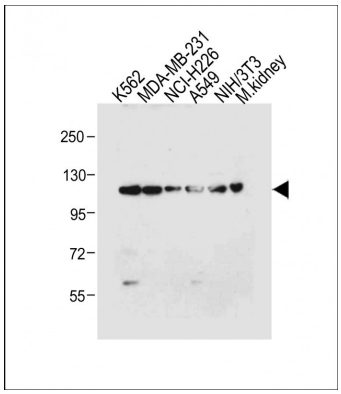
Immunohistochemical analysis of AP7671d on paraffin-embedded Human kidney tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted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



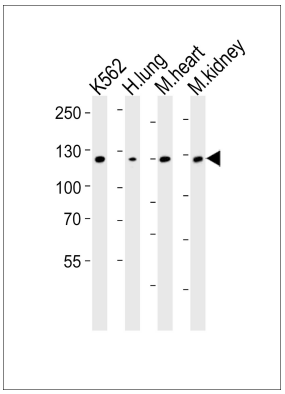
Immunohistochemical analysis of AP7671d on paraffin-embedded Human heart tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted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

Anti-ROR1 Antibody at 1:4000 dilution + PANC-1 whole cell 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.

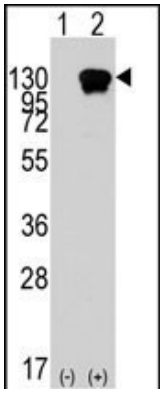




All lanes : Anti-ROR1 Antibody at 1:4000 dilution Lane 1: K562 whole cell lysate Lane 2: MDA-MB-231 whole cell lysate Lane 3: NCI-H226 whole cell lysate Lane 4: A549 whole cell lysate Lane 5: NIH/3T3 whole cell lysate Lane 6: Mouse kidney tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat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

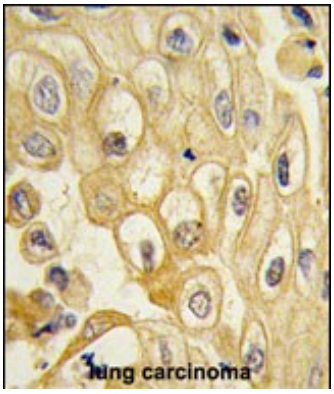


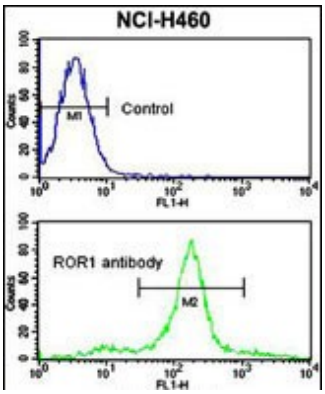
Western blot analysis of lysates from K562 cell line, human lung, mouse heart and kidney tissue lysate(from left to right), using ROR1 Antibody(Cat. #AP7671D). AP7671D was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



Western blot analysis of ROR1 (arrow) using rabbit polyclonal ROR1 Antibody (Cat.#AP7671d).293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the ROR1 gene (Lane 2) (Origene Technologies).

Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with the ROR1 antibody (Cat.#AP7671d), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.





Flow cytometric analysis of NCI-H460 cells using ROR1 antibody (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

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

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