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ROR2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7672A

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q01974
Reactivity	Human
Predicted	Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	104757
Antigen Region	19-50

Additional Information

Gene ID	4920
Other Names	Tyrosine-protein kinase transmembrane receptor ROR2, Neurotrophic tyrosine kinase, receptor-related 2, ROR2, NTRKR2
Target/Specificity	This ROR2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 19-50 amino acids from the N-terminal region of human ROR2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	ROR2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ROR2
Synonyms	NTRKR2
Function	Tyrosine-protein kinase receptor which may be involved in the early

formation of the chondrocytes. It seems to be required for cartilage and growth plate development (By similarity). Phosphorylates YWHAB, leading to induction of osteogenesis and bone formation (PubMed:17717073). In contrast, has also been shown to have very little tyrosine kinase activity in vitro. May act as a receptor for wnt ligand WNT5A which may result in the inhibition of WNT3A-mediated signaling (PubMed:25029443).

Cellular Location Cell membrane; Single-pass type I membrane protein

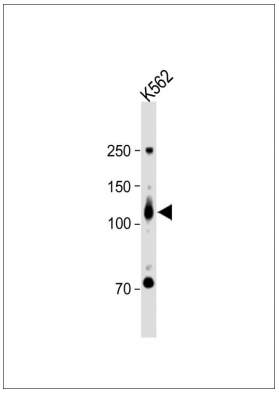
Background

ROR2 is a tyrosine-protein kinase receptor which may be involved in the early formation of the chondrocytes. It seems to be required for cartilage and growth plate development. This Type I membrane protein is expressed at high levels during early embryonic development. The expression levels drop strongly around day 16 and there are only very low levels in adult tissues. Defects in ROR2 are a cause of brachydactyly type B1 (BDB1). BDB1 is an autosomal dominant skeletal disorder characterized by hypoplasia/aplasia of distal phalanges and nails. In BDB1 the middle phalanges are short but in addition the terminal phalanges are rudimentary or absent. Both fingers and toes are affected. The thumbs and big toes are usually deformed. Defects in ROR2 are a cause of recessive Robinow syndrome (RRS). RRS is an autosomal disorder characterized by skeletal dysplasia with generalized limb bone shortening, segmental defects of the spine, brachydactyly and a dysmorphic facial appearance. The protein contains 1 frizzled (FZ) domain, 1 immunoglobulin-like C2-type domain, and 1 kringle domain.

References

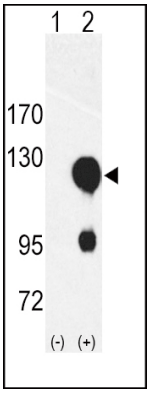
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Oldridge, M., et al., Nat. Genet. 24(3):275-278 (2000).
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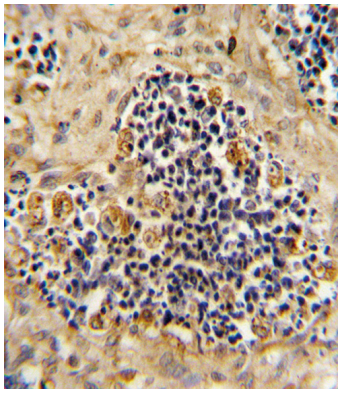
Images



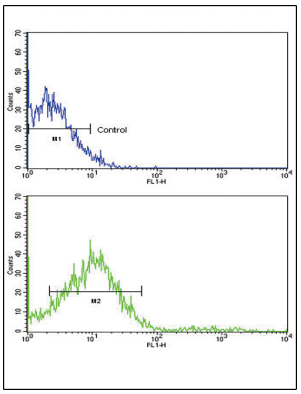
All lanes : Anti-ROR2 Antibody (N-term) at 1:1000 dilution + K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 105kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Western blot analysis of ROR2 (arrow) using rabbit polyclonal ROR2 Antibody (N-term) (Cat.#AP7672a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the ROR2 gene (Lane 2) (Origene Technologies).





Formalin-fixed and paraffin-embedded human kidney carcionma reacted with ROR2 Antibody (N-term), 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-H292 cells using ROR2 Antibody (N-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- The orphan tyrosine kinase receptor, ROR2, mediates Wnt5A signaling in metastatic melanoma.
- Comparative study of ROR2 and WNT5a expression in squamous/adenosquamous carcinoma and adenocarcinoma of the gallbladder.
- Validation of specificity of antibodies for immunohistochemistry: the case of ROR2.

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