10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# ROR2 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7672d

## Product Information

| | |
|---|---|
| **Application** | WB, IHC-P, E |
| **Primary Accession** | Q01974 |
| **Other Accession** | NP_004551 |
| **Reactivity** | Human |
| **Predicted** | Mouse, Rat, Bovine, Canine, Rabbit, Chicken |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB16733 |
| **Calculated MW** | 104757 |

## 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 recombinant protein of human ROR2. |
| **Dilution** | WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. 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 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 |

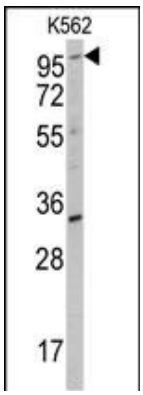
## Background

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.

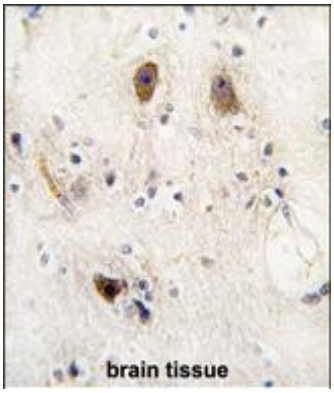
## References

Afzal, A.R., et al., Nat. Genet. 25(4):419-422 (2000). Oldridge, M., et al., Nat. Genet. 24(3):275-278 (2000). van Bokhoven, H., et al., Nat. Genet. 25(4):423-426 (2000). Schwabe, G.C., et al., Am. J. Hum. Genet. 67(4):822-831 (2000). Masiakowski, P., et al., J. Biol. Chem. 267(36):26181-26190 (1992).

## Images




Western blot analysis of anti-ROR2 Antibody (Cat.#AP7672d) in K562 cell line lysates (35ug/lane). ROR2(arrow) was detected using the purified Pab.




Formalin-fixed and paraffin-embedded human brain tissue reacted with ROR2 antibody, 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.

## Citations

- Frizzled 1 and Wnt1 as new potential therapeutic targets in the traumatically injured spinal cord
- RoR2 functions as a noncanonical Wnt receptor that regulates NMDAR-mediated synaptic transmission.
- Association between Wnt inhibitory factor 1 and receptor tyrosine kinase-like orphan receptor 2 protein expression and the clinical pathological significance in benign and malignant pancreatic lesions.

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