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ROR1 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1308a

Specification

ROR1 Antibody - Product Information

Application	**WB, ICC, E**
Primary Accession	Q01973
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**101kDa KDa**

Description
ROR1, a type I membrane protein, is a receptor protein tyrosine kinase that modulates neurite growth in the central nervous system. The ROR-family receptor tyrosine kinases consist of two structurally related proteins, ROR1 and ROR2. These proteins are characterized by having intracellular tyrosine kinase domains, which are highly related to Trk-family kinases, extracellular Frizzled-like cysteine-rich domains (CRDs) and Kringle domains. The ROR family members are highly conserved among species, such as C. elegans, Drosophila, Xenopus and mammals. ROR1 and ROR2 are both involved in organogenesis with particular emphasis in neuronal differentiation. Increased expression of ROR1 in acute lymphoblastic leukemias (ALLs) as well as chronic lymphocytic leukemias (CLLs) implicate this protein as a potential tool for targeted immunotherapy in these diseases.

Immunogen
Recombinant extracellular fragment of human ROR1 (aa30-406) fused with hIgGFc tag, expressed in HEK293 cells

Formulation
Ascitic fluid containing 0.03% sodium azide.

ROR1 Antibody - Additional Information

Gene ID 4919

Other Names
Tyrosine-protein kinase transmembrane receptor ROR1, 2.7.10.1, Neurotrophic tyrosine kinase, receptor-related 1, ROR1, NTRKR1

Dilution
WB~~1/500 - 1/2000
ICC~~N/A
E~~N/A

Storage
Maintain refrigerated at 2-8°C for up to 6 months. 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
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ROR1 Antibody - Images

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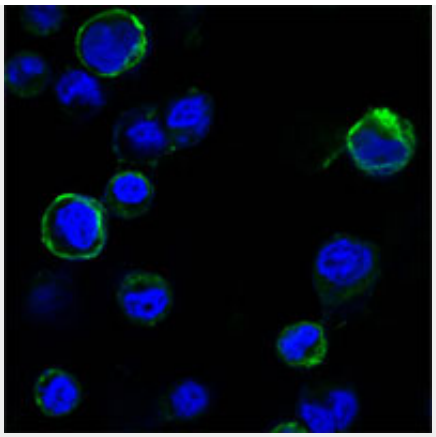

Figure 1: Confocal immunofluorescence analysis of HEK293 cells trasfected with extracellular ROR1 (aa30-406)-hIgGFc using ROR1 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

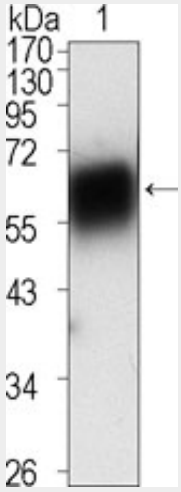

Figure 2: Western blot analysis using ROR1 mouse mAb against extracellular domain of human ROR1 (aa30-423).

ROR1 Antibody - References

1. J Cell Sci. 2005 Jan 15;118(Pt 2):433-46. 2. Oncogene. 1996 Oct 3;13(7):1555-9.