Revision 4

Store at -20C

#4102

ROR1 Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M	Transfected Only	135	Rabbit	#Q01973	4919

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

ROR1 Antibody detects transfected levels of ROR1 proteins. It does not cross-react with ROR2.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the residues surrounding Pro87 of human ROR1 protein. The antibodies are purified by protein A and peptide affinity chromatography.

Background

ROR1 and ROR2 are orphan receptor tyrosine kinases that are most closely related to MuSK and the Trk family of neurotrophin receptors. They are characterized by the presence of extracellular frizzled-like cysteine-rich domains and membrane-proximal kringle domains, both of which are assumed to mediate protein-protein interactions (1-3). The ROR family RTKs are evolutionarily conserved among *Caenorhabditis elegans*, *Drosophila*, mice, and humans (1,4). Although the functions of ROR kinases are unknown, similarities between ROR and MuSK and Trk kinases have led to speculation that ROR kinases regulate synaptic development. CAM-1, a *C. elegans* ortholog of the ROR family RTKs, plays several important roles in regulating cellular migration, polarity of asymmetric cell divisions, and axonal outgrowth of neurons during nematode development (4). mROR1 and mROR2 may play differential roles during the development of the nervous system (5).

Background References

1. Al-Shawi, R. et al. (2001) *Dev Genes Evol* 211, 161-71.
2. Nomi, M. et al. (2001) *Mol Cell Biol* 21, 8329-35.
3. Roszmusz, E. et al. (2001) *J Biol Chem* 276, 18485-90.
4. Forrester, W.C. et al. (1999) *Nature* 400, 881-5.
5. Oishi, I. et al. (1999) *Genes Cells* 4, 41-56.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse

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Limited Uses

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