

MONOCLONAL ANTIBODY

Anti-ROR2 (Human) mAb

Code No.	Clone	Subclass	Quantity	Concentration
W361-3	7C9D6	Mouse IgG2a κ	100 μ L	1 mg/mL

BACKGROUND: Receptor tyrosine kinase-like orphan receptor 2, also known as ROR2, belongs to a family of the receptor tyrosine kinases. While ROR2 is highly expressed during early embryonic development, it has low expression levels in adult tissues. ROR2 has been known to play key roles in developmental morphogenesis, particularly in the formation of cartilage-derived skeleton. Disruption of mouse *Ror2* leads to profound skeletal abnormalities. In humans, mutations in *ROR2* are found in brachydactyly type B1, characterized by hypoplasia of the distal and middle phalanges. ROR2 deficiency is also associated with recessive Robinow syndrome, resulting in shortening of limbs, facial dysmorphia, and spinal defects.

SOURCE: This antibody was purified from hybridoma culture supernatant by Protein A affinity column chromatography.

IMMUNOGEN: Human ROR2 expressed Ba/F3 transfectants generated from SST-REX (signal sequence trap by retrovirus-mediated expression screening).

FORMULATION: 100 μ g IgG in 100 μ L volume of PBS containing 50% glycerol, pH 7.2. No preservative is contained.

STORAGE: This antibody solution is stable for one year from the date of purchase when stored at -20°C.

REACTIVITY: This antibody reacts with human ROR2 on Flow cytometry.

APPLICATIONS:

- Flow cytometry; 1-10 μ g/mL
- Western blotting; Not tested
- Immunoprecipitation; Not tested
- Immunohistochemistry; Not tested
- Immunocytochemistry; Not tested

Detailed procedure is provided in the following **PROTOCOL**.

INTENDED USE:

For Research Use Only. Not for use in diagnostic procedures.

Entrez Gene ID:

4920 (Human)

REFERENCES:

- 1) Liu, Y., *et al.*, *Mol. Endocrinol.* **21**, 3050-3061 (2007)
- 2) van Bolhoven, H., *et al.*, *Nat. Genet.* **25**, 423-426 (2000)
- 3) Afzal, A. R., *et al.*, *Nat. Genet.* **25**, 419-422 (2000)
- 4) Kojima, T. and Kitamura, T., *Nat. Biotechnol.* **17**, 487-490 (1999)

SPECIES CROSS REACTIVITY:

Species	Human	Mouse	Rat	Hamster
Cells	Transfectant	Not tested	Not tested	Not tested
Reactivity on FCM	+			

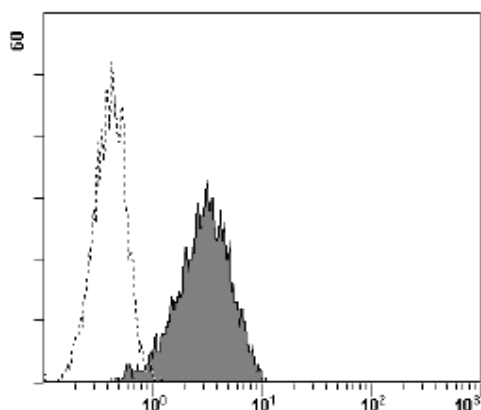
PROTOCOL:

Flow cytometric analysis for floating cells

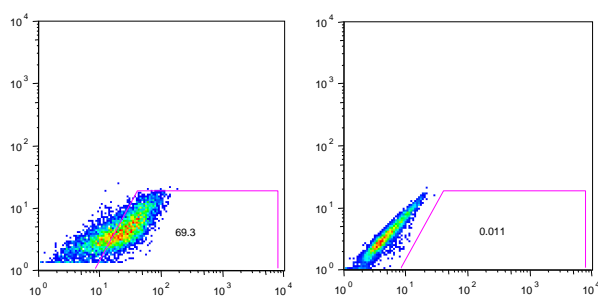
We usually use Fisher tubes or equivalents as reaction tubes for all steps described below.

- 1) Wash the cells 3 times with washing buffer [PBS containing 2% fetal calf serum (FCS) and 0.05% NaN₃].
- 2) Resuspend the cells with washing buffer (2.5 x 10⁶ cells/mL).
- 3) Add 200 μ L of cell suspension into each tube. And centrifuge at 500 x g for 1 minute at room temperature (20~25°C). Remove supernatant by careful decantation.
- 4) Add 20 μ L of Clear Back (human Fc receptor blocking reagent, MBL; code no. MTG-001) to the cell pellet after tapping. Mix well and incubate for 5 minutes at room temperature.
- 5) Add 50 μ L of the primary antibody at the concentration as suggest in the **APPLICATIONS** diluted in the washing buffer. Mix well and incubate for 30 minutes at room temperature.
- 6) Add 1 mL of the washing buffer followed by centrifugation at 500 x g for 1 minute at room temperature. Remove supernatant by careful decantation.
- 7) Add 50 μ L of 1:200 Goat F(ab')₂ Anti-Mouse IgG-PE (Beckman Coulter; code no. IM0855) diluted with the washing buffer. Mix well and incubate for 30 minutes at room temperature.
- 8) Add 1 mL of the washing buffer followed by centrifugation at 500 x g for 1 minute at room temperature. Remove supernatant by careful decantation.
- 9) Resuspend the cells with 500 μ L of the washing buffer and analyze by a flow cytometer.

(Positive control for Flow cytometry; Transfectant)



Flow cytometric analysis of human ROR2 expression on Ba/F3 transfectant. Open histograms indicate the reaction of isotypic control to the cells. Shaded histograms indicate the reaction of W361-3 to the cells.



Flow cytometric analysis of ROR2 expression (left) and negative control (right) on human mesenchymal stem cells. The staining intensity of W361-3 is shown in the horizontal axis.

Data were kindly provided by Dr. Yumi Matsuzaki. (Department of Life Laboratory of Tumor Biology, Faculty of Medicine, Shimane University)

RELATED PRODUCTS:

W005-3	Anti-BTN2A1 (Human) mAb
W008-3	Anti-Carboxypeptidase D (Human) mAb
W010-3	Anti-CCDC107 (Human) mAb
W011-3	Anti-Dystroglycan (Human) mAb
W017-3	Anti-EphA2 (Human) mAb
W029-3	Anti-IGFBP1 (Human) mAb
W031-3	Anti-IGFBP6 (Human) mAb
W039-3	Anti-MANSC1 (Human) mAb
W041-3	Anti-Neuroplastin (Human) mAb
W046-3	Anti-CD201 (EPCR) (Human) mAb
W049-3	Anti-QSOX1 (Human) mAb
W050-3	Anti-RECK (Human) mAb

W052-3	Anti-Osteopontin (SPP1) (Human) mAb
W072-3	Anti-CD358 (DR6) (Human) mAb
W074-3	Anti-CRELD1 (Human) mAb
W077-3	Anti-GRK5 (Human) mAb
W080-3	Anti-ADAMTS1 (Human) mAb
W086-3	Anti-LYPD3 (C4.4A) (Human) mAb
W089-3	Anti-C11orf24 (Human) mAb
W092-3	Anti-CD321 (F11R/JAM-A) (Human) mAb
W109-3	Anti-TMED2 (Human) mAb
W111-3	Anti-DLL4 (Human) mAb
W117-3	Anti-TINAGL1 (Human) mAb
W124-3	Anti-GPR56 (Human) mAb
W125-3	Anti-GPR56 (Human) mAb
W128-3	Anti-CD318 (CDCP1) (Human) mAb
W147-3	Anti-TYRO3 (Human) mAb
W158-3	Anti-HEXA (Human) mAb
W164-3	Anti-RHBDD3 (Human) mAb
W168-3	Anti-AXL (Human) mAb
W172-3	Anti-CD172a (SIRP α) (Human) mAb
W181-3	Anti-Apolipoprotein D (Human) mAb
W194-3	Anti-FAM171A1 (Human) mAb
W253-3	Anti-Glypican 1 (Human) mAb
W321-3	Anti-FGFRL1 (Human) mAb
W357-3	Anti-CD105 (Endoglin) (Human) mAb
W358-3	Anti-CD300A (Human) mAb
W359-3	Anti-CD300C (Human) mAb
W360-3	Anti-ROR2 (Human) mAb
W361-3	Anti-ROR2 (Human) mAb
W362-3	Anti-FZD5 (Human) mAb
M076-3	Mouse IgG2a (isotype control)
MTG-001	Clear Back (Human Fc receptor blocking reagent)