

MAIR-II (P-12): sc-161817

BACKGROUND

MAIR-II (myeloid-associated immunoglobulin-like receptor 2), also known as CLM (CMRF35-like molecule), DlgR1 (dendritic cell-derived Ig-like receptor 1), IgSF7 (immunoglobulin superfamily member 7) or AF251705, is a 230 amino acid single-pass type I membrane protein. Belonging to the CD300 family, MAIR-II contains one Ig-like V-type (immunoglobulin-like) domain. MAIR-II is present on the surface of mast cells, dendritic cells, B cells and peritoneal macrophages, where it may act as an activating receptor. The gene encoding MAIR-II, which exists as two alternatively spliced isoforms, maps to mouse chromosome 11 E2.

REFERENCES

1. Luo, K., et al. 2001. DlgR1, a novel membrane receptor of the immunoglobulin gene superfamily, is preferentially expressed by antigen-presenting cells. *Biochem. Biophys. Res. Commun.* 287: 35-41.
2. Kumagai, H., et al. 2003. Identification and characterization of a new pair of immunoglobulin-like receptors LMIR1 and 2 derived from murine bone marrow-derived mast cells. *Biochem. Biophys. Res. Commun.* 307: 719-729.
3. Yotsumoto, K., et al. 2003. Paired activating and inhibitory immunoglobulin-like receptors, MAIR-I and MAIR-II, regulate mast cell and macrophage activation. *J. Exp. Med.* 198: 223-233.
4. Chung, D.H., et al. 2003. CMRF-35-like molecule-1, a novel mouse myeloid receptor, can inhibit osteoclast formation. *J. Immunol.* 171: 6541-6548.
5. Nakahashi, C., et al. 2007. Dual assemblies of an activating immune receptor, MAIR-II, with ITAM-bearing adapters DAP12 and FcRγ chain on peritoneal macrophages. *J. Immunol.* 178: 765-770.
6. Nakano-Yokomizo, T., et al. 2011. The immunoreceptor adapter protein DAP12 suppresses B lymphocyte-driven adaptive immune responses. *J. Exp. Med.* 208: 1661-1671.

CHROMOSOMAL LOCATION

Genetic locus: AF251705 (mouse) mapping to 11 E2.

SOURCE

MAIR-II (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of MAIR-II of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161817 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

MAIR-II (P-12) is recommended for detection of MAIR-II of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MAIR-II siRNA (m): sc-149232, MAIR-II shRNA Plasmid (m): sc-149232-SH and MAIR-II shRNA (m) Lentiviral Particles: sc-149232-V.

Molecular Weight of MAIR-II: 25 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.