Mouse TWEAK R/TNFRSF12 Antibody

Monoclonal Rat IgG_{2B} Clone # 314615

Catalog Number: MAB1610

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse TWEAK R/TNFRSF12 in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant mouse (rm) 4-1BB, rmTNF RII, rmTRAIL R2, rmTNF RI, rmFAS, rmEDAR, rmRANK, rmCD30, rmOPG, rmDR3, rmNGF R, rmLTRβ, rmHVEM, rmGITR, rmCD27, rmBAFF, recombinant human (rh) DR6, rhRELT, rhTRAIL R3, or rhTRAIL R4 is observed.
Source	Monoclonal Rat IgG_{2B} Clone # 314615
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant mouse TWEAK R/TNFRSF12 Glu28-Trp79 Accession # Q9CR75
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Mouse TWEAK R/TNFRSF12 Fc Chimera (Catalog # 1610-TW) under non-reducing conditions only

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

TNF-related weak inducer of apoptosis receptor (TWEAK R) belongs to the TNF receptor superfamily and is designated TNFRSF12. The gene for TWEAK R was originally identified as a fibroblast growth factor-inducible immediate-early response gene Fn14 in mouse NIH 3T3 fibroblasts (1, 2). Mouse TWEAK R cDNA encodes a 129 amino acid (aa) type I transmembrane protein with a 27 aa signal peptide, a 53 aa extracellular domain, a 21 aa transmembrane domain and a 28 aa cytoplasmic domain (1-3). Human and mouse TWEAK R share 82% aa sequence identity. TWEAK R is the smallest member of the TNF receptor superfamily and contains only one cysteine-rich region in its extracellular domain. The TWEAK R cytoplasmic domain contains one TRAF binding motif which binds TRAFs 1, 2, and 3. TWEAK R binds its ligand TWEAK/TNFSF12 with high affinity to initiate a signal transduction cascade that depending upon the cell type, may lead to a variety of cellular responses including cell death by both caspase-dependent apoptosis and cathepsin B-dependent necrosis, cell proliferation, and angiogenesis (2-6). In newborn mice, TWEAK R is highly expressed in all tissues examined (heart, intestine, kidney, liver, lung and skin) (1). In adult mice, high TWEAK R expression levels are found in the heart and ovary, while lower expression levels are detected in the lung, kidney, skin. Elevated levels of TWEAK R mRNA were found in human or mouse hepatocellular carcinoma specimens, in regenerating mouse liver and in injured rat arteries (2, 3).

References:

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2. Feng, S. *et al.* (2000) Am. J. Pathol. **156**:1253.
3. Wiley, S. *et al.* (2001) Immunity **15**:837.
4. Schneider, P. *et al.* (1999) Eur. J. Immunol. **29**:1785.
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6. Lynch, C.N. *et al.* (1999) J. Biol. Chem. **274**:8455.