

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse DcTRAIL R2/TNFRSF22 in direct ELISAs and Western blots. In direct ELISAs, approximately 20% cross-reactivity with recombinant mouse DcTRAIL R1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse DcTRAIL R2/TNFRSF22 Ala39-Arg175 Accession # Q9ER62
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

TRAIL interacts via a complex receptor system to preferentially induce apoptosis of tumor cells *in vivo* and *in vitro* (1). In human, two signaling receptors (TRAIL R1 and TRAIL R2) and three decoy receptors (TRAIL R3, TRAIL R4, and OPG) for TRAIL exist. Mouse homologues of human TRAIL R1, -3, and -4 have not been found. Three novel mouse genes (TNF RH1, -2, and -3) that encode proteins with the classic TNF receptor cysteine-rich domains (CRDs) have been identified. These mouse genes are closely clustered on distal mouse chromosome 7 and do not have orthologues in the corresponding human chromosomal region (2). TNF RH1 and -2 have been implicated as decoy receptors for mouse TRAIL and named mDcTRAIL R1/TNFRSF23 and mDcTRAIL R2/TNFRSF22, respectively. The ligand for TNF RH3 is not known (1).

The mouse decoy TRAIL R2 (mDcTRAIL R2) gene encodes a 198 amino acid (aa) residues type I transmembrane protein with a putative 39 aa signal peptide, a 136 aa extracellular domain, a 18 aa transmembrane region, and a 5 aa cytoplasmic tail (1, 2). An alternatively spliced variant encoding a secreted soluble receptor of 180 aa has also been described. The transmembrane and soluble receptors are known as mDcTRAIL R2_L and mDcTRAIL R2_S, respectively. Both mDcTRAIL R2 isoforms and the GPI-linked mDcTRAIL R1 bind TRAIL specifically but are incapable of triggering signal transduction. Mouse DcTRAIL R1 and mDcTRAIL R2 share 71% sequence identity (3). The two receptors have similar structural modules in their CRDs, which differ from those found in the CRDs of mTNF RH3 (2, 3). Mouse DcTRAIL R1 preferentially binds mTRAIL while mDcTRAIL R2 binds both human and mTRAIL. mRNA of mouse DcTRAIL R1 and -2 are expressed at low levels in many mouse tissues and at higher levels in several mouse cell lines.

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