

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse TRAIL/TNFSF10 in ELISAs and Western blots. In sandwich ELISAs, less than 0.1% cross-reactivity with recombinant human TRAIL is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse TRAIL/TNFSF10 Pro118-Asn291 Accession # P50592
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

## 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
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse TRAIL/TNFSF10 (Catalog # 1121-TL)
<b>Immunohistochemistry</b>	5-15 µg/mL	Perfusion fixed frozen sections of mouse thymus
<b>Mouse TRAIL/TNFSF10 Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	2-8 µg/mL	Mouse TRAIL/TNFSF10 Antibody (Catalog # MAB1121)
<b>ELISA Detection Standard</b>	0.1-0.4 µg/mL	Mouse TRAIL/TNFSF10 Biotinylated Antibody (Catalog # BAF1121) Recombinant Mouse TRAIL/TNFSF10 (Catalog # 1121-TL)

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

TNF-related apoptosis-inducing ligand (TRAIL), also called apoptosis 2 ligand (Apo2L) for its similarity in sequence, structure, and function to Fas Ligand/Apo1L, is a 33-35 kDa type II transmembrane glycoprotein of the tumor necrosis factor superfamily, designated TNFSF10 (1-3). Mouse TRAIL cDNA encodes a 17 amino acid (aa) N-terminal intracellular domain, a 20 aa transmembrane domain and a 253 aa extracellular domain. Like most TNF family members, TRAIL is bioactive as a homotrimer (1). Unlike other TNF family members, a zinc ion complexed by human Cys 230 (mouse Cys 240) of each of the three monomers is critical for structural stability (4, 5). Either transmembrane or cysteine protease-released soluble sTRAIL induce apoptosis of many transformed cell lines, but rarely of normal cells (3, 6). Accordingly, TRAIL is suggested to have a role in tumor surveillance (1). Mice with genetically disrupted TRAIL have defective thymocyte apoptosis, creating faulty negative selection and some increased susceptibility to induced autoimmune diseases (7). In humans, TRAIL controls apoptosis of erythrocyte precursors and sTRAIL is inversely correlated with hemoglobin (1, 8). TRAIL transcripts are constitutively expressed in a variety of human (and presumably mouse) tissues and mononuclear cells (2, 3). Only one of two receptors that transduce apoptotic signals in humans is found in the mouse (TRAIL R2/DR5 but not TRAIL R1/DR4) (1). Mice express TRAIL receptors DcTRAIL R1/TNFRSF23 and DcTRAIL R2/TNFRSF22. These receptors lack death domains, but differ in structure from human regulatory receptors TRAIL R3 and TRAIL R4 (9). Osteoprotegerin has been identified in humans as a TRAIL receptor, but binding in mouse has not yet been demonstrated (1, 10). Mouse TRAIL shows 85% aa identity with rat TRAIL and 70% aa identity with human, bovine, and porcine TRAIL within the TNF homology domain (aa 118-291).

## References:

1. Zauli, G. and P. Secchiero (2006) Cytokine Growth Factor Rev. **17**:245.
2. Wiley, S.R. *et al.* (1995) Immunity **3**:673.
3. Pitti, R.M. *et al.* (1996) J. Biol. Chem. **271**:12687.
4. Bodmer, J.L. *et al.* (2000) J. Biol. Chem. **275**:20632.
5. Hymowitz, S.G. *et al.* (2000) Biochemistry **39**:633.
6. Sedger, L. M. *et al.* (2002) Eur. J. Immunol. **32**:2246.
7. Lamhamedi-Cherradi, S.E. *et al.* (2003) Nat. Immunol. **4**:255.
8. Choi, J.W. (2005) Ann. Hematol. **84**:728.
9. Schneider, P. *et al.* (2003) J. Biol. Chem. **278**:5444.
10. Emery, J. *et al.* (1998) J. Biol. Chem. **273**:14363.