

#### DESCRIPTION

<b>Species Reactivity</b>	Human/Primate
<b>Specificity</b>	Detects human TRAIL in ELISAs and Western blots. In sandwich immunoassays, less than 0.05% cross-reactivity with recombinant mouse (rm) TRAIL, rhFas Ligand, rhOPG, rhTNF- $\alpha$ , and rhTRANCE is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human TRAIL (R&D Systems, Catalog # 375-TL) Thr95-Gly281 Accession # P50591
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 $\mu$ g/mL	Recombinant Human TRAIL/TNFSF10 (Catalog # 375-TL)
<b>Human/Primate TRAIL/TNFSF10 Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	2-8 $\mu$ g/mL	Human/Primate TRAIL/TNFSF10 Antibody (Catalog # MAB3751)
<b>ELISA Detection</b>	0.1-0.4 $\mu$ g/mL	Human/Primate TRAIL/TNFSF10 Biotinylated Antibody (Catalog # BAF375)
<b>Standard</b>		Recombinant Human TRAIL/TNFSF10 (Catalog # 375-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

TRAIL (TNF-related apoptosis-inducing ligand), also known as APO-2 ligand, is a type II transmembrane protein with a carboxy-terminal extracellular domain which exhibits homology to other TNF family members. In the new TNF superfamily nomenclature, TRAIL is referred to as TNFSF10. Human TRAIL cDNA encodes a 281 amino acid (aa) residue protein with an amino-terminal intracellular domain of 17 residues and a predicted internal hydrophobic domain between residues 18 and 38. The extracellular carboxy-terminal domain contains a potential N-linked glycosylation site at amino acid residue 109. Among TNF family members, TRAIL is most homologous to FAS ligand, sharing 28% amino acid sequence identity in their extracellular domains. Mouse TRAIL has also been cloned. The human TRAIL shares 65% amino acid sequence identity with mouse TRAIL and is active on mouse cells. Both membrane bound and soluble TRAIL have been shown to induce rapid apoptosis of many transformed cell lines. Like most TNF family members, the bioactive TRAIL exists as a homotrimer. TRAIL transcripts have been shown to be constitutively expressed in a variety of human tissues. A family of TRAIL receptors, including two receptors that transduce the apoptotic signals and two TRAIL decoy receptors that function to antagonize TRAIL-induced apoptosis, have been identified (1-3). Osteoprotegerin has been identified as a fifth TRAIL receptor (4).

#### References:

1. Golstein, P. (1997) *Current Biology* **7**:R750.
2. Wiley, S.R. *et al.* (1995) *Immunity* **3**:673.
3. Pitti, R.M. *et al.* (1996) *J. Biol. Chem.* **271**:12687.
4. Emery, J. *et al.* (1998) *J. Biol. Chem.* **273**:14363.