

DESCRIPTION	
Species Reactivity	Mouse
Specificity	Detects mouse TWEAK R in ELISAs and Western blots. In sandwich ELISAs, less than 2% cross-reactivity with recombinant human TWEAK R is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant mouse TWEAK R/TNFRSF12 Glu28-Trp79 Accession # Q9CR75
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
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.

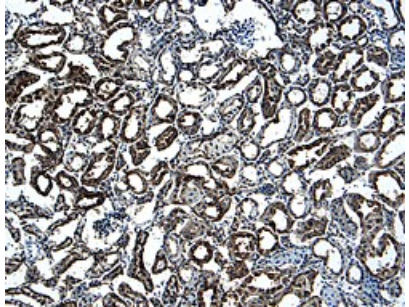
APPLICATIONS

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	0.1 µg/mL	Recombinant Mouse TWEAK R/TNFRSF12 Fc Chimera (Catalog # 1610-TW)
Flow Cytometry	2.5 µg/10 ⁶ cells	MS-1 mouse pancreatic islet endothelial cell line
Immunohistochemistry	5-15 µg/mL	See Below
Mouse TWEAK R/TNFRSF12 Sandwich Immunoassay		Reagent
ELISA Capture	0.2-0.8 µg/mL	Mouse TWEAK R/TNFRSF12 Antibody (Catalog # AF1610)
ELISA Detection	0.1-0.4 µg/mL	Mouse TWEAK R/TNFRSF12 Biotinylated Antibody (Catalog # BAF1610)
Standard		Recombinant Mouse TWEAK R/TNFRSF12 Fc Chimera (Catalog # 1610-TW)
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

Immunohistochemistry



TWEAK R/TNFRSF12 in Mouse Kidney.
TWEAK R/TNFRSF12 was detected in perfusion fixed frozen sections of mouse kidney using 15 µg/mL Goat Anti-Mouse TWEAK R/TNFRSF12 Antigen Affinity-purified Polyclonal Antibody (Catalog # [AF1610](#)) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # [CTS008](#)) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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. <ul style="list-style-type: none"> ● 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) residues 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:

1. Meighan-Mantha, R. *et al.* (1999) *J. Biol. Chem.* **274**:33166.
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.
5. Nakayama, M. *et al.* (2002) *J. Immunol.* **168**:734.
6. Lynch, C.N. *et al.* (1999) *J. Biol. Chem.* **274**:8455.