# Mouse TWEAK/TNFSF12 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1237

## DESCRIPTION

| | |
|---|---|
| **Species Reactivity** | Mouse |
| **Specificity** | Detects TWEAK/TNFSF12 in direct ELISAs and Western blots. In direct ELISAs, approximately 30% cross-reactivity with recombinant human TWEAK is observed and less than 1% cross-reactivity with recombinant mouse (rm) BAFF, rmFas Ligand, rmOX40 Ligand, rmTNF-α, and rmTRAIL is observed. |
| **Source** | Polyclonal Goat IgG |
| **Purification** | Antigen Affinity-purified |
| **Immunogen** | *E. coli*-derived recombinant mouse TWEAK/TNFSF12<br>Arg105-His249<br>Accession # O54907 |
| **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.<br>*Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS. |

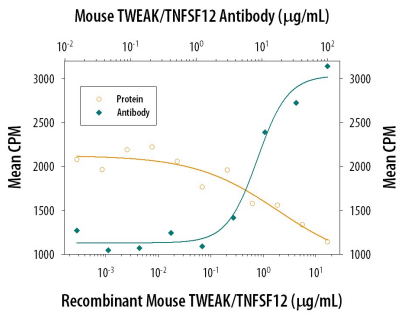
## APPLICATIONS

**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/TNFSF12 (Catalog # 1237-TW) |
| **Neutralization** | Measured by its ability to neutralize TWEAK/TNFSF12-induced inhibition of proliferation in the HT−29 human colon adenocarcinoma cell line. Yu, K. Y. *et al.* (1999) J. Biol. Chem. **274**:13733; Harrop, J. A. *et al.* (1998) J. Biol. Chem. **273**:27548The Neutralization Dose ($ND_{50}$) is typically 4-16 µg/mL in the presence of 2 µg/mL Recombinant Mouse TWEAK/TNFSF12. | |

## DATA

**Neutralization**




**TWEAK/TNFSF12 Inhibition of Cell Proliferation and Neutralization by Mouse TWEAK/TNFSF12 Antibody.** Recombinant Mouse TWEAK/TNFSF12 (Catalog # 1237-TW) inhibits proliferation in the the HT-29 human colon adenocarcinoma cell line in a dose-dependent manner (orange line). Activity elicited by Recombinant Mouse TWEAK/TNFSF12 (2 µg/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Mouse TWEAK/TNFSF12 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1237). The $ND_{50}$ is typically 4-16 µg/mL.

## PREPARATION AND STORAGE

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|---|---|
| **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.<br>*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.**<br>● 12 months from date of receipt, -20 to -70 °C as supplied.<br>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |



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## BACKGROUND

TNF-related weak inducer of apoptosis (TWEAK) is a type II transmembrane protein belonging to the TNF superfamily and has been designated TNFSF12. Mouse TWEAK is a 249 amino acid (aa) protein with an N-terminal 21 aa cytoplasmic domain, a 21 aa transmembrane region and a 204 aa C-terminal extracellular domain (1). The primary structures of the extracellular domains of human and mouse TWEAK are 88% identical. A soluble form of TWEAK is generated from the membrane-associated molecules by proteolytic cleavage suggesting that TWEAK may have long-range effects. TWEAK is expressed widely in many tissues and cells (1). Although TWEAK has been proposed as a ligand that signals through the death domain receptor 3 (DR3) (2), a TNF receptor superfamily member currently designated TNFRSF25, subsequent studies did not demonstrate binding of TWEAK to cell lines that express DR3 (3). In cells that lack DR3, TWEAK has been shown to bind TWEAK receptor (TWEAK R), a novel TNF receptor superfamily member designated TNFRSF12A (4-7). TWEAK R, also known as fibroblast growth factor-inducible 14 (Fn14), is a growth factor-inducible immediate-early response gene that is expressed in fibroblasts, hepatocellular carcinomas and endothelial cells. TWEAK-TWEAK R interaction has been shown to promote NF-κB activation and mediate multiple cell death pathways. On endothelial cells, TWEAK R plays a role in endothelial cell growth and migration. This effect of TWEAK is not due to upregulation of VEGF (8).

**References:**

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