

Active Recombinant Human TNFSF12 Protein

Cat. No. TNFSF12-565H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human TNFSF12 produced in E. Coli is a soluble 17.0 kDa polypeptide (154 amino acid residues) comprising the TNF homologous region of TWEAK and is generated by proteolytic processing of the full length membrane anchored TWEAK protein.
Species	Human
Source	E.coli
Description	TWEAK belongs to the TNF family of ligands and signals through TWEAKR also known as TNFRSF12A. TWEAK is expressed in a variety of tissues, including the adult heart, pancreas, skeletal muscle, small intestine, spleen and peripheral blood lymphocytes. TWEAK has the ability to induce NFκB activation and chemokine secretion, and to exert an apoptotic activity in certain cells, such as HT-29 human adenocarcinoma cells when cultured in the presence of IFN-gamma. TWEAK also promotes proliferation and migration of endothelial cells.
Amino Acid Sequence	MKGRKTRARR AIAAHYEVHP RPGQDGAQAG VDGTVSGWEE ARINSSSPLR YNRQIGEFIV TRAGLYLYYC QVHFDEGKAV YLKDLLVDG VLALRCLEEF SATAASSLGP QLRLCQVSGL LALRPGSSLR IRTLPWAHLK AAPFLTIFYGL FQVH
Supplied	Lyophilized protein from 10mM NaP, pH7.5 +0.1M L- Arg.
Purity	>98% by SDS-Page analysis. Endotoxin level is less than 0.1ng per ug (1EU/ug) of human TWEAK.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Reactivity	The ED50 as determined by the dose dependent stimulation of IL-8 production by Human PBMC is less than 10 ng/ml. Tweak weakly induces the death of HT29 cells when cultured in the presence of IFN-gamma. The Ed50 for this effect is between 30-45 ng/ml.
Reconstitution	The lyophilized TWEAK is soluble in water and most aqueous buffers. The lyophilized powder MUST be reconstituted in 10mM sodium phosphate, pH7.5 to a concentration of 1ug/ul. Allow to set at least 30 minutes at 4°C. If desired, can centrifuge for 1 minute at 1000 rpm to concentrate material in vial. This solution can be diluted into water or other buffered solutions or stored at 4°C for up to 1 week or at -20°C for future use. For most in-vitro applications, TWEAK exerts its biological activity in the concentration range of 0.2 to 20.0 ng/ml.
Note	If this material is not to be used for coating or labeling (or other applications requiring carrier free material), the addition of 0.1% BSA to dilution buffers or dilution in sterile culture media is recommended to enhance stability and minimize absorption to vial. Ideally, maintain stock >50ug/ml.
Storage	The lyophilized powder, though stable at room temperature for a few weeks, is best stored desiccated at -20°C. Reconstituted TWEAK should be stored in working aliquots at -20°C. Avoid frequent freeze thaw cycles.
Full Length	Full L.

GENE INFORMATION

Gene Name	TNFSF12 tumor necrosis factor (ligand) superfamily, member 12 [Homo sapiens]
Synonyms	TNFSF12; tumor necrosis factor (ligand) superfamily, member 12; APO3L; DR3LG; TWEAK; MGC20669; MGC129581; APO3/DR3 ligand; TNF-related WEAK inducer of

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apoptosis; Tumor necrosis factor ligand superfamily member 12; APO3 ligand; Tumor necrosis factor ligand superfamily member 12, membrane form; Tumor necrosis factor ligand superfamily member 12, secreted form; UNQ181/PRO207; MGC129581; MGC20669

Gene ID	8742
mRNA Refseq	NM_003809
Protein Refseq	NP_003800
MIM	602695
UniProt ID	O43508.
Chromosome Location	17p13.1
Pathway	Cytokine-cytokine receptor interaction
Function	cytokine activity; tumor necrosis factor receptor binding

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