TWEAK Human E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Human
Other names: Tumor necrosis factor ligand superfamily member 12, TNF-related weak inducer of apoptosis, APO3 ligand, TNFSF12, DR3LG

Cat. No.:

RBG10335005	(5 µg)
RBG10335025	(25 µg)
RBG10335100	(100 µg)

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 NF-?B 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-?. TWEAK also promotes proliferation and migration of endothelial cells. The human TWEAK gene encodes for a 249 amino acid type II transmembrane protein, which contains a 21 amino acid cytoplasmic domain, a 21 amino acid transmembrane domain, and a 207 amino acid extracellular domain. Recombinant Human TWEAK 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.

Amino Acid Sequence

MKGRKTRARR AIAAHYEVHP RPGQDGAQAG VDGTVSGWEE ARINSSSPLR YNRQIGEFIV TRAGLYYLYC QVHFDEGKAV
YLKLDLLVDG VLALRCLEEF SATAASSLGP QLRLCQVSGL LALRPGSSLR IRTLPWAHLK AAPFLTYFGL FQVH

Source

E. coli

Purity

98%

Biological Activity

Assay #1: The ED_{50} as determined by the dose-dependent stimulation of IL-8 production by Human PBMC is less than 10 ng/ml. Assay #2: TWEAK weakly induces the death of HT29 cells when cultured in the presence of IFN-?. The ED_{50} for this effect is between 30-45 ng/ml.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in 10 mM Sodium Phosphate, pH 7.5 to a concentration of 1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at-20°C to -80°C.

Storage, Stability/Shelf Life

-20°C

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