Datasheet for ABIN2666449

TWEAK Protein (AA 97-249)

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Overview

Quantity:	25 µg
Target:	TWEAK (TNFSF12)
Protein Characteristics:	AA 97-249
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Application:	Biochemical Assay (BCA)

Product Details

Purity:	> 98 % , as determined by Coomassie stained SDS-PAGE.
Endotoxin Level:	Less than 0.1 ng per µg of protein.

Target Details

Target:	TWEAK (TNFSF12)
Alternative Name:	TWEAK (TNFSF12 Products)
Background:	TWEAK (TNFSF12) is a "TNF-like weak inducer" of apoptosis through a non-death domain-dependent mechanism. TWEAK is a type II membrane protein which exhibits a single internal hydrophobic domain of 27 amino acids in the N-terminal region. TWEAK is proteolytically cleaved to produce a soluble cytokine that signals as a trimerized molecule. Fibroblast growth factor-inducible 14 (Fn14)/TWEAKR has been described as a receptor for TWEAK, and it is

Target Details

	associated with proliferation of endothelial cells and angiogenesis. However, TWEAK mediates signal transduction and linear differentiation of monocyte/macrophage cells lacking Fn14/TWEAKR, suggesting that such cells contain an alternative TWEAK receptor. Elevated levels of TWEAK and/or Fn14 have been found to be associated with the pathogenesis of rheumatoid arthritis, skeletal muscle wasting, systemic lupus erythematosus, multiple sclerosis, stroke, neuroinflammation and neurodegeneration, and several types of cancer. The pathological functions of TWEAK are primarily attributed to its ability to induce the expression of several proinflammatory cytokines, chemokines, cell adhesion molecules, and matrix-degrading enzymes mainly through the activation of NF-κB, a major proinflammatory transcription factor. It has been described that CD163 (a scavenger receptor) might be acting as a receptor decoy for the ligand TWEAK.
Molecular Weight:	The 154 amino acid N-terminal methionylated recombinant protein has a predicted molecular mass of 17 kDa.
Pathways:	Apoptosis

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Comment:	Biological activity: ED50 < 10 ng/ml, corresponding to a specific activity of > 1 x 107 units/mg, as determined by the dose dependent stimulation of production of IL-8 by human PBMC.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	For maximum results, quick spin vial prior to opening. Reconstitute in 10 mM sodium phosphate, pH 7.5 to a concentration of 1.0 mg/mL. Do not vortex. It is recommended to further dilute in a buffer containing a carrier protein such as 0.1 % BSA and store working aliquots at -20 °C to -80 °C.
Buffer:	Lyophilized
Handling Advice:	Avoid repeated freeze/thaw cycles.
Storage:	-20 °C
Storage Comment:	Unopened vial can be stored at -20°C or -70°C.