

TECHNICAL DATA SHEET

# Recombinant Human TWEAK (CD255) (Carrier-free)

Catalog Number: 21-7089

**RPx-Pro™ Recombinant Protein**

PRODUCT INFORMATION

**CONTENTS**

Recombinant Human TWEAK (CD255) (Carrier-free)

**DESCRIPTION**

The TNF-like weak inducer of apoptosis (TWEAK) cytokine belongs to the TNF superfamily of proteins that can exist in membrane bound or soluble formats. As its name suggests, it is not as effective in inducing apoptosis as TNF, and is limited to fewer cell targets. TWEAK can induce chemokine production, promote angiogenesis, and can induce proliferation and migration of endothelial cells. TWEAKR, alternatively known as FN14 or CD266, has been described as a receptor for TWEAK. DR3 (Death Receptor 3) has also been suggested as a receptor for TWEAK. TWEAK is expressed in a variety of tissues, including the adult heart, pancreas, skeletal muscle, small intestine, spleen and peripheral blood lymphocytes.

**MOLECULAR MASS**

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 TRAGLYLYYC QVHFDEGKAV  
YLKLDLLVDG VLALRCLEEF SATAASSLGP QLRLCQVSG LALRPGSSLR IRTLPWAHLK AAPFLTYFGL FQVH

**SOURCE**

E. coli

**APPLICATIONS**

Bioassay

**PURITY**

98 %

**STORAGE**

-20°C

**PROTEIN CONTENT**

Content Verified by UV Spectroscopy and/or SDS-PAGE

**ENDOTOXIN LEVEL**

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

**AUTHENTICITY**

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

**CROSS REACTIVITY**

Mouse

**BIOACTIVITY**

**Assay #1:** The ED<sub>50</sub> 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-gamma. The ED<sub>50</sub> for this effect is between 30-45 ng/ml.

**RESEARCH AREAS**

Angiogenesis/Cardiovascular; Apoptosis; Inflammation; Neurobiology; Proliferation; TNF Superfamily

**RECONSTITUTION**

See Certificate of Analysis (COA) for lot specific reconstitution information.

**REFERENCES**

Chicheportiche Y, Bourdon PR, Xu H, Hsu YM, Scott H, Hession C, Garcia I and Browning JL. 1997. J Biol Chem. 272(51): 32401-32410. Wiley SR and Winkles JA. 2003. Cytokine Growth Factor Rev. 14(3-4): 241-249. Nakayama M, Ishidoh K, Kayagaki N, Kojima Y, Yamaguchi N, Nakano H, Kominami E, Okumura K and Yagita H. 2002. J Immunol. 168(2): 734-743. Nakayama M, Ishidoh K, Kojima Y, Harada N, Kominami E, Okumura K and Yagita H. 2003. J Immunol. 170(1): 341-348. Jakuboski A, Browning B, Lukashev M, Sizing I, Thompson JS et al. 2002. J Cell Sci. 115(Pt 2): 267-274.

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