



## User Manual

**TNF-related weak inducer of apoptosis receptor (TWEAKR)  
(Human)**

**Cat. No. HEOPP-20072**



**Description:**

Human TNF-related weak inducer of apoptosis receptor (TWEAKR) also known as Tumor necrosis factor receptor superfamily member 12A precursor (gene name TNFRSF12A) or fibroblast growth factor-inducible 14 kDa protein, is distantly related to the TNFR family, containing one cysteine-rich domain in the extracellular region and a TNFR-associated factor binding domain but does not contain a death domain (DD) cytoplasmic region. It is expressed in the spleen, thymus, peripheral blood lymphocytes, colon, and small intestine. Signal transduction by TWEAKR can be activated by either the membrane anchored or the soluble TWEAK. In addition, It plays a role in TWEAK-induced endothelial cell migration, proliferation, and angiogenesis.

**Source:**

*Escherichia coli*

**Unit:**

25 µg

**Reconstitution:**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at < -20°C. Further dilutions should be made in appropriate buffered solutions.

**Formulation:**

Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

**Storage:**

This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working

aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

**Molecular Weight:**

Approximately 5.6 kDa, a single non-glycosylated polypeptide chain containing 53 amino acids.

**Endotoxin:**

Less than 1 EU/μg of TWEAKR as determined by LAL method.

**Usage:**

This material is offered by Cyagen Biosciences for research, laboratory or further evaluation purposes. FOR RESEARCH USE ONLY. NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAP EUTIC OR DIAGNOSTIC USE.

**Biological Activity:**

The ED50 determined by inhibiting TWEAK-dependent proliferation of human umbilical vein endothelial cells (HUVEC) is less than 30 ng/mL, corresponding to a specific activity of  $> 3.3 \times 10^4$  IU/mg, in the presence of 15 ng/mL of TWEAK.

**Physical Appearance:**

Sterile filtered white lyophilized (freeze-dried) powder.

**AA Sequence:**

EQAPGTAPCS RGSSWSADLD KCMDCASCRA RPHSDFCLGC AAAPPAPFRL LWP

**Purity:**

> 95% by SDS-PAGE and HPLC analyses.

Material Safety Data Sheets (MSDSs) are available upon request.

The Certificate of Analysis (COA), which provides detailed quality control information for each product, is also available at the Cyagen website.

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