

## Recombinant Human Trefoil Factor 1 (rHuTFF1)

## **ChemWhat Technical Data Sheet (TDS)**

Catalog Number:

601-14

Source:

Escherichia coli.

Molecular Weight:

Approximately 13.2 kDa, a homodimer consisting of two 60 amino acid polypeptide chains, which

includes a 40-amino acid trefoil motif containing three conserved intramolecular disulfide bonds.

Quantity:

 $5 \mu g / 20 \mu g / 1000 \mu g$ 

AA Sequence:

EAQTETCTVA PRERQNCGFP GVTPSQCANK GCCFDDTVRG VPWCFYPNTI DVPPEEECEF

Purity:

> 97 % by SDS-PAGE and HPLC analyses.

Biological Activity:

Fully biologically active when compared to standard. The  $\mathrm{ED}_{50}$  as determined by a chemotaxis

bioassay using human MCF-7 cells is less than 10 μg/ml, corresponding to a specific activity of >

100 IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4, 150 mM NaCl.

Endotoxin:

Less than 1 EU/µg of rHuTFF1 as determined by LAL method.

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  $\leq$  -20  $\mathbb C$ . Further dilutions should be made in appropriate buffered solutions.

Shipping:

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature

recommended below.

Stability & Storage:

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

12 months from date of receipt, -20 to -70 °C as supplied.

1 month, 2 to 8 °C under sterile conditions after reconstitution.

3 months, -20 to -70 °C under sterile conditions after reconstitution.

Usage:

ChemWhat Limited in UK offers this branded product for research, development or further

evaluation purposes. NOT FOR HUMAN USE.

## Human Trefoil Factor 1

Trefoil factor 1 belongs to the trefoil factor family that consists of three members named TFF1, TFF2 and TFF3. They are characterized by having at least one copy of the trefoil motif, a 40-amino acid domain that contains three conserved disulfides. The TFFs are stable secretory proteins expressed highly in the gastrointestinal tract (gastric mucosa). TFF1 is an essential protein for normal differentiation of the antral and pyloric gastric mucosa and functions as a stabilizer of the mucous gel overlying the gastrointestinal mucosa that provides a physical barrier against various noxious agents. It is studied because of commonly expressed in tumors as well.

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