



Trefoil Factor-2, human recombinant (rHuTFF2)

Catalog No: 08561
Lot No: XXXXX
Source: *E. coli*
Synonyms: TFF-2, Spasmolytic polypeptide, Spasmolysin, SML1, Trefoil factor 2, SP, TFF2

Background

Proteins of the TFF family are characterized by obtaining a minimum of 1 copy of the trefoil motif, a 40-amino acid domain that contains 3 conserved disulfides. Trefoil Factors are stable secretory proteins expressed in gastrointestinal mucosa which protect the mucosa from insults, stabilize the mucus layer and affect healing of the epithelium. TFF2 inhibits gastric acid motility & secretion. TFF2 stabilizes glycoproteins in the mucus gel through interactions with carbohydrate side chains.

Description

TFF-2 human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 106 amino acids (24-129) and having a total molecular mass of 12 kDa. TFF2 human recombinant includes a 40-amino acid trefoil motif containing three conserved intramolecular disulfide bonds and was purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The TFF2 protein was lyophilized from 0.4 µm filtered solution at a concentration of 1 mg/mL containing 1x PBS pH 7.4.

Solubility

It is recommended to reconstitute the lyophilized TFF2 in sterile 18 MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized TFF2, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution TFF2 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

EKPSPQCQCSR LSPHNRTNCG FPGITSDQCF DNGCCFDSSV TGVPWCFHPL PKQESDQCV M EVSDRRNCGY PGISPEECAS
RKCCFSNFIF EVPWCFPPKS VEDCHY

Activity

Determined by its ability to chemoattract human MCF-7 cells using a concentration 1.0 - 10.0 ng/ml.

Usage

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