



Trefoil Factor-3, His Tag, human recombinant (rHuTFF3-His)

Catalog No: 08565
Lot No: XXXXX
Source: *E. coli*
Synonyms: TFF-3, ITF, TFI, HITF, hP1.B, TFF3, Trefoil factor 3, Intestinal trefoil factor

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. TFF3 induces ciliogenesis and promotes airway epithelial ciliated cell differentiation, relatively through an epidermal growth factor receptor-dependent pathway. TFF3 overexpression is crucial for progression in mouse and human hepatocellular carcinogenesis. TFF-3 is normally expressed in hepatocellular carcinoma and its expression associates with tumor grade.

Description

TFF-3 human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 69 amino acids (22-80) which includes a 10 amino acid His Tag fused at N-terminus and having a total molecular mass of 7.82 kDa. TFF3 is purified by proprietary chromatographic techniques.

Physical Appearance

White lyophilized (freeze-dried) powder.

Formulation

The TFF3 protein was lyophilized from 0.4 µm filtered solution at a concentration of 0.5 mg/mL containing 20 mM Tris pH 7.5 and 150 mM NaCl.

Solubility

Add deionized water to a working concentration approximately 0.5 mg/ml and let the lyophilized pellet dissolve completely. Product is not sterile! Please filter the product by appropriate sterile filter before using it in the cell culture.

Stability

Lyophilized TFF3, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution TFF3 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 95.0% as by SDS-PAGE.

Amino Acid Sequence

MKHHHHHHAS E EYVGLSANQ CAVPAKDRVD CGYPHVTPKE CNNRGCCFDS RIPGVPWCFK PLQEAECTF

Usage

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