

Active Recombinant Human TFF2 protein, Tag Free

Cat. No. TFF2-30657TH Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human TFF2 protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	24-129 a.a.
Description	Trefoil factor 2 encoded by the TFF2 gene in humans, 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). TFF2 can inhibit gastrointestinal motility and gastric acid secretion. Additionally, it functions as a structural component of gastric mucus, possibly by stabilizing glycoproteins in the mucus gel through interactions with carbohydrate side chains.
Form	Lyophilized from a 0.2µm filtered concentrated solution in 20 mM PB, pH 7.4, 130 mM NaCl.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by a chemotaxis bioassay using human MCF-7 cells is less than 10 ng/ml, corresponding to a specific activity of $> 1.0 \times 10^5$ IU/mg.
Molecular Mass	Approximately 12.0 kDa, a single non-glycosylated polypeptide chain containing 106

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	amino acids, which includes a 40-amino acid trefoil motif containing three conserved intramolecular disulfide bonds.
AA Sequence	EKSPQCQCSRLSPHNRTNCGFPGITSDQCFDNGCCFDSSVTGVPWCFHPLPKQES DQCVMEVSDRRNCGYPGISPEECASRKCCFSNFIFEVPWCFFPKSVEDCHY
Endotoxin	Less than 1 EU/g of rHuTFF2 as determined by LAL method.
Purity	>97% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
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 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	TFF2
Official Symbol	TFF2
Synonyms	TFF2; trefoil factor 2; SML1, spasmolytic protein 1; spasmolysin; spasmolytic protein 1; spasmolytic polypeptide; SP; SML1;
Gene ID	7032

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mRNA Refseq	NM_005423
Protein Refseq	NP_005414
MIM	182590
UniProt ID	Q03403

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