

## Recombinant Human Trefoil Factor 2

### Information

<b>Gene ID</b>	7032
<b>Accession #</b>	Q03403
<b>Alternate Names</b>	Spasmolysin, Spasmolytic polypeptide, SP
<b>Source</b>	Escherichia coli.
<b>M.Wt</b>	Approximately 12.0 kDa, a single non-glycosylated polypeptide chain containing 106 amino acids, which includes a 40-amino acid trefoil motif containing three conserved intramolecular disulfide bonds.
<b>AA Sequence</b>	EKSPQCQCSR LSPHNRTNCG FPGITSDQCF DNGCCFDSSV TGVPWCFFHPL PKQESDQCVM EVSDRRNCGY PGISPEECAS RKCCFSNFIF EVPWCFFPKS VEDCHY
<b>Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Stability &amp; Storage</b>	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
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4, 130 mM NaCl.
<b>Reconstitution</b>	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.
<b>Biological Activity</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> 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 × 10 <sup>5</sup> IU/mg.
<b>Shipping Condition</b>	Gel pack.
<b>Handling</b>	Centrifuge the vial prior to opening.
<b>Usage</b>	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	5µg	100µg	500µg
Recombinant Human Trefoil Factor 2	5µg	100µg	500µg

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- 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

## Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rHuTFF2 as determined by LAL method.

## 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.

## Reference

1. Seib T, Blin N, Hilgert K, et al. 1997. Genomics, 40: 200-2
2. Kirikoshi HandKatoh M. 2002. Int J Oncol, 21: 655-9
3. Xue L, Aihara E, Podolsky DK, et al. 2010. Gut, 59: 1184-91
4. Poulsen SS, Thulesen J, Christensen L, et al. 1999. Gut, 45: 516-22.

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