

## Recombinant Human Trefoil Factor 1

### Information

<b>Gene ID</b>	7031
<b>Accession #</b>	P04155
<b>Alternate Names</b>	Breast Cancer Estrogen-inducible Protein, PNR-2, Polypeptide P1.A (hP1.A), Protein pS2
<b>Source</b>	Escherichia coli.
<b>M.Wt</b>	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.
<b>AA Sequence</b>	EAQTETCTVA PRERQNCGFP GVTPSQCAN K GCCFDDTVRG VPWCFYPNTI DVPPEEECEF
<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, 150 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 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.
<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 1	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 rHuTFF1 as determined by LAL method.

## Description

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.

## Reference

1. Seib T, Blin N, Hilgert K, et al. 1997. Genomics, 40: 200-2
2. Kirikoshi HandKato M. 2002. Int J Oncol, 21: 655-9
3. Marchbank T, Westley BR, May FE, et al. 1998. J Pathol, 185: 153-8
4. Wang DG, Liu WH, Lundy FT, et al. 1998. J Pathol, 184: 408-13.

**APExBIO Technology**

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