

Recombinant Human Trefoil Factor 1 (Human TFF1)

Product Information

Product Name	Cat#	Size
Recombinant Human Trefoil Factor 1 (Human TFF1)	92562ES08	5 µg
	92562ES60	100 µg
	92562ES76	500 µg

Product 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. Mature human TFF1 shares 67% amino acid sequence identity with mouse and rat TFF1. 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. TFF1 is down-regulated during the progression from gastritis to gastric dysplasia to gastric cancer, although it is up-regulated in breast and prostate cancers. TFF1 inhibits the formation of calcium oxalate crystals, and its excretion in the urine is reduced in patients with kidney stones.

Product Properties

Synonyms	Breast Cancer Estrogen-inducible Protein, PNR-2, Polypeptide P1.A (hP1.A), Protein pS2
Accession	P04155
GeneID	7031
Source	E.coli-derived human TFF1 protein, Glu25-Phe84.
Molecular Weight	Approximately 13.2 kDa.
AA Sequence	EAQTETCTVA PRERQNCGFP GVTPSQCANK GCCFDDTVRG VPWCFYPNTI DVPPEEECEF
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	>97% by SDS-PAGE and HPLC analyses.
Biological Activity	The ED ₅₀ 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. Fully biologically active when compared to standard.
Endotoxin	< 1.0 EU per 1 µg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4, 150 mM NaCl. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
Reconstitution	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.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.

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2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!