

Recombinant Human Trefoil Factor 2 (Human TFF2)

Product Information

Product Name	Cat#	Size
Recombinant Human Trefoil Factor 2 (Human TFF2)	92563ES08	5 µg
	92563ES60	100 µg
	92563ES76	500 µg

Product Description

Trefoil Factor 2 (TFF2), also known as spasmolytic peptide (SP), is one of three structurally related secreted proteins that contain trefoil domains. Trefoil factor 2 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 TFF2 shares 87% and 83% amino acid sequence identity with mouse and rat TFF2. 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. Administration of TFF2 can reduce the severity of experimental colitis. TFF2 is down-regulated in many gastric cancers, although it is up-regulated in some breast cancers.

Product Properties

Synonyms	Spasmolysin, Spasmolytic polypeptide, SP
Accession	Q03403
GeneID	7032
Source	E.coli-derived human TFF2 protein, Glu24-Tyr129.
Molecular Weight	Approximately 12.0 kDa.
AA Sequence	EKPSPCQCSR LSPHNRTNCG FPGITSDQCF DNGCCFDSSV TGVPWCFHPL PKQESDQCVM EVSDRRNCGY PGISPEECAS RKCCFSNFIF EVPWCFFPKS VEDCHY
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 ng/mL, corresponding to a specific activity of > 1.0 × 10 ⁵ IU/mg. Fully biologically active when compared to standard.
Endotoxin	< 1.0 EU per 1µg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4, 130 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.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!