**DESCRIPTION**

**Source**  
Chinese Hamster Ovary cell line, CHO-derived  
Glu24–Tyr129  
Accession # Q03403

**N-terminal Sequence Analysis**  
Glu24

**Predicted Molecular Mass**  
12 kDa

**SPECIFICATIONS**

**SDS-PAGE**  
17-25 kDa, reducing conditions

**Activity**  
Measured by its ability to induce ERK1/ERK2 phosphorylation in Jurkat human acute T cell leukemia cells.  
5-15 μg/mL of Recombinant Human TFF2 can effectively induce ERK1/2 phosphorylation.

**Endotoxin Level**  
<0.10 EU per 1 μg of the protein by the LAL method.

**Purity**  
>95%, by SDS-PAGE with silver staining.

**Formulation**  
Lyophilized from a 0.2 μm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

**Reconstitution**  
Reconstitute at 500 μg/mL in PBS.

**Shipping**  
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage**  
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.

**BACKGROUND**

Trehel Factor 2 (TFF2), also known as spasmolytic peptide (SP), is one of three structurally related secreted proteins that contain trefoil domains. These domains adopt a three-leaved conformation held together by conserved intrachain disulfide bonds. TFF2 is an approximately 20 kDa glycosylated peptide that plays an important role in epithelial regeneration and wound healing (1, 2). Mature human TFF2 shares 87% and 83% amino acid sequence identity with mouse and rat TFF2, respectively. TFF2 is primarily expressed by gastric mucosa of the pyloric stomach where it binds to Gastrokine 2 (3, 4). It is up-regulated in bronchiolar epithelium following exposure to allergens and is excreted into the urine at increased levels in patients with kidney stones (5, 6). TFF2 knockout mice exhibit increased gastric epithelium damage following H. pylori infection or treatment with non-steroidal anti-inflammatory drugs (7, 8). Administration of TFF2 can reduce the severity of experimental colitis (9-11). TFF2 is down-regulated in many gastric cancers, although it is up-regulated in some breast cancers (12-14). TFF2 promotes the migration of normal epithelial cells as well as tumor cells (14, 15).

**References:**