



Catalog No.: RP01779 Recombinant

# **Sequence Information**

Species Gene ID Swiss Prot Human 7031 P04155

**Tags** 

C-His

**Synonyms** 

pS2; BCEI; HPS2; HP1.A; pNR-2; D21S21;TFF1

## **Product Information**

**Source** Purification HEK293 cells ≥ 95 % as

determined by SDS-

PAGE.

Calculated MW Observed MW

7.54 kDa 15 kDa

**Endotoxin** 

< 0.1 EU/ $\mu$ g of the protein by LAL method.

#### Formulation

Lyophilized from a 0.22  $\mu m$  filtered solution of PBS, pH 7.4.

#### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

### **Contact**

6	400-999-6126
$\sim$	cn.market@abclonal.com.cn
•	www.abclonal.com.cn

## **Background**

Trefoil Factor 1 (TFF1), also known as pS2, 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. TFF1 is an approximately 7 kDa peptide that plays an important role in epithelial regeneration and wound healing (1). Mature human TFF1 shares 67% amino acid sequence identity with mouse and rat TFF1. It is expressed by goblet cells of the gastric and intestinal mucosa and by conjunctival goblet cells (2-5). TFF1 is a copper-binding protein that can form disulfide-linked homodimers, associate into disulfide-linked complexes with Gastrokine 2, and form non-covalent complexes with the mucin MUC5AC (4, 6-8). Copper enhances TFF1 homodimerization as well as its ability to promote epithelial cell motility, wound healing, and the colonization of H. pylori in stomach and colon epithelia (9, 10). 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 (11-13). TFF1 inhibits the formation of calcium oxalate crystals, and its excretion in the urine is reduced in patients with kidney stones (14).

## **Basic Information**

### **Description**

Recombinant Human BCEI/PS2/TFF1 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Glu25-Phe84) of human BCEI/PS2/TFF1 (Accession  $\#NP_003216.1$ ) fused with and a  $6\times His$  tag at the C-terminus.

#### **Bio-Activity**

#### **Shipping**

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

#### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

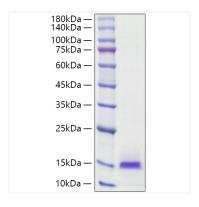
After reconstitution, the protein solution is stable at -20  $^{\circ}$ C for 3 months, at 2-8  $^{\circ}$ C for up to 1 week.

Avoid repeated freeze/thaw cycles.

### **Operational Notes**

For your safety and health, please wear a lab coat and disposable gloves for handling.

# **Validation Data**



Recombinant Human BCEI/PS2/TFF1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.