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## Product Data Sheet

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Product Name: TFF3 Rat  
 Cat. No.: GP20941  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Trefoil factor 3; Intestinal trefoil factor; rITF; Polypeptide P1.B; rP1.B; Tff3; Itf.		
Amino Acid Sequence	MQEFVGLSPS QCMVPANVRV DCGYPTVTSE QCNNRGCCFD SSIPNVPWCF KPLQETECT F DYKDDDDK.		
Solubility	It is recommended to add 200 $\mu$ l deionized water to prepare a working stock solution of approximately 0.5 mg/ml and let the lyophilized pellet dissolve completely. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.		
Formulation	TFF3 protein filtered (0.4 $\mu$ m) and lyophilized in 0.5mg/ml in 20mM TRIS and 50mM NaCl, pH 7.5.		

### Introduction

Proteins of the TFF family are characterized by obtaining a minimum of 1 copy of the trefoil motif, a 40-amino acid domain that contains 3 conserved disulfides. Trefoil Factors are stable secretory proteins expressed in gastrointestinal mucosa which protect the mucosa from insults, stabilize the mucus layer and affect healing of the epithelium. TFF2 inhibits gastric acid motility & secretion. TFF2 stabilizes glycoproteins in the mucus gel through interactions with carbohydrate side chains. TFF3 induces ciliogenesis and promotes airway epithelial ciliated cell differentiation, relatively through an epidermal growth factor receptor-dependent pathway. TFF3 overexpression is crucial for progression in mouse and human hepatocellular carcinogenesis. TFF-3 is normally expressed in hepatocellular carcinoma and its expression associates with tumor grade.

### Stability

Store lyophilized protein at -20°C . Aliquot the product after reconstitution to avoid

**Caution: Product has not been fully validated for medical applications. For research use only.**

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repeated freezing/thawing cycles. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C .

### Background

The Trefoil Factor-3 Rat was constructed as a recombinant protein with a 9 a.a C-terminal fusion of Flag-Tag (1 aa N-terminal+8 aa C-terminal). The TFF3 Rat produced in E.coli, is 7.7kDa protein containing a total of 68 amino acid residues.

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