Data Sheet (Cat.No.TMPK-00007)

TargetMol

TFF1 Protein, Human, Recombinant (hFc)

General Information

Synonyms:	Polypeptide P1.A;Trefoil factor 1;Bcei;HP1.A;pNR-2;PS2;HPS2;TFF1;D21S21
Protein Construction:	Glu25-Phe84
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P04155
Molecular Weight:	33.3 kDa (predicted). Due to glycosylation, the protein migrates to 40-45 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Breast cancer (BC) is the most common cancer in women and the second leading cause of their cancer death. Establishing an accurate BC prognosis is very difficult because of its heterogeneity. Elevated TFF1 levels in serum were associated with development of BC, TFF1 expression was upregulated in BC compared to the healthy breast tissue.That expression of TFF1 was related to ER status of BC and that expression of TFF1 was lower in TNBC than in non-TNBC.

Reference

Yi J, et al. Trefoil factor 1 (TFF1) is a potential prognostic biomarker with functional significance in breast cancers. Biomed Pharmacother. 2020 Apr;124:109827. doi: 10.1016/j.biopha.2020.109827. Epub 2020 Jan 24. PMID: 31986408.

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