

## Recombinant Human TERF1/TRF1 Protein (His Tag)

Catalog No. PKSH030754

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

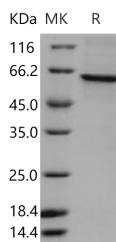
### Description

<b>Synonyms</b>	FLJ41416;hTRF1-AS;PIN2;t-TRF1;TRBF1;TRF;TRF1
<b>Species</b>	Human
<b>Expression Host</b>	Baculovirus-Insect Cells
<b>Sequence</b>	Met 1-Asp 419
<b>Accession</b>	NP_003209.2
<b>Calculated Molecular Weight</b>	50.5 kDa
<b>Observed molecular weight</b>	60 kDa
<b>Tag</b>	N-His
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 90 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 8.0, 10% glycerol Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 90 % as determined by reducing SDS-PAGE.

### Background

Telomeric repeat binding factor 1 (TRF1), also known as TERF1, the shelterin complex, which modulates the telomere structures. TRF1 protein structure contains a C-terminal Myb motif, a dimerization domain near its N-terminus and an

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acidic N-terminus. Pin2/TRF1 was originally identified as a protein bound to telomeric DNA (TRF1) and as a protein involved in mitotic regulation (Pin2). Pin2/TRF1 negatively regulates telomere length and importantly, its function is tightly regulated during the cell cycle, acting as an important regulator of mitosis. TRF1 can be bound and modulated by two nucleolar GTP-binding proteins, nucleostemin (NS) and guanine nucleotide binding protein-like 3-like (GNL3L), which exhibit apparently opposite effects on the protein degradation of TRF1. TRF1/TERF1 may have association with cancer. TRF1 may play a significant role in cell differentiation in non-small cell lung cancer (NSCLC). The expression level of TRF1 protein is significantly reduced in kidney cancer and the level is negatively correlated with malignant degree of the cancer. TRF1 expression in malignant gliomas cells, may play a role in the malignant progression of astroglial brain tumors.