# abcam

### Product datasheet

## Recombinant Human TRF1 protein ab116406

#### 1 Image

**Description** 

Product name Recombinant Human TRF1 protein

Purity > 90 % SDS-PAGE.

Expression system Escherichia coli

Accession P54274-2

Protein length Full length protein

Animal free No

**Nature** Recombinant

**Species** Human

Predicted molecular weight 77 kDa including tags

Amino acids 1 to 419

#### **Specifications**

Our <u>Abpromise guarantee</u> covers the use of ab116406 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** Western blot

**ELISA** 

SDS-PAGE

Mass Spectrometry

Mass spectrometry MALDI-TOF-TOF

Form Liquid

#### **Preparation and Storage**

**Stability and Storage** Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 7.40

Constituent: 99% PBS

#### General Into

**Function** Binds the telomeric double-stranded TTAGGG repeat and negatively regulates telomere length.

Involved in the regulation of the mitotic spindle. Component of the shelterin complex (telosome) that is involved in the regulation of telomere length and protection. Shelterin associates with arrays of double-stranded TTAGGG repeats added by telomerase and protects chromosome ends; without its protective activity, telomeres are no longer hidden from the DNA damage surveillance

and chromosome ends are inappropriately processed by DNA repair pathways.

**Tissue specificity** Highly expressed and ubiquitous. Isoform Pin2 predominates.

Sequence similarities Contains 1 HTH myb-type DNA-binding domain.

**Domain** The acidic N-terminal domain binds to the ankyrin repeats of TNKS1 and TNKS2. The C-terminal

domain binds microtubules.

The TRFH dimerization region mediates the interaction with TINF2.

Post-translational modifications

Phosphorylated preferentially on Ser-219 in an ATM-dependent manner in response to ionizing

DNA damage.

ADP-ribosylation by TNKS1 or TNKS2 diminishes its ability to bind to telomeric DNA.

Ubiquitinated by RLIM/RNF12, leading to its degradation by the proteasome. Ubiquitinated by a SCF (SKP1-CUL1-F-box protein) ubiquitin-protein ligase complex, leading to its degradation by

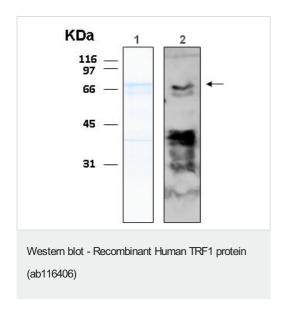
the proteasome.

Cellular localization Nucleus. Cytoplasm > cytoskeleton > spindle. Chromosome > telomere. Colocalizes with

telomeric DNA in interphase and metaphase cells and is located at chromosome ends during

metaphase. Associates with the mitotic spindle.

#### **Images**



10% SDS-PAGE stained with Coomassie Blue (Lane 1), immunobloting with anti-6xHis (Lane 2)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- Replacement or refund for products not performing as stated on the datasheet
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