

## Product datasheet

# Recombinant Human TDP43 protein (denatured) ab156345

[3 References](#) [1 Image](#)

### Description

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**Product name** Recombinant Human TDP43 protein (denatured)

**Purity** > 90 % SDS-PAGE.

**Expression system** Escherichia coli

**Accession** **Q13148**

**Protein length** Full length protein

**Animal free** No

**Nature** Recombinant

**Species** Human

**Sequence**

```
MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD
KDRWGSMSSEY IRVTEDEDE PIEIPSEDDG
TVLLSTVTAQ FPGACGLRYR NPVSQCMRGV
RLVEGILHAP DAGWGNLVV VNYPKDNKRK
MDETDASSAV KVKRAVQKTS DLMVGLPWK
TTEQDLKEYF STFGEVLMVQ VKKDLKTGHS
KGFVRFTE YETQVKVMSQ RHMIDGRWCD
CKLPNSKQSQ DEPLRSRVF VGRCTEDMTE
DELREFFSQY GDVMDVFIPK PFRAFAFVTF
ADDQIAQSLC GEDLIIGIS VHSNAEPKH NSNRQLERSG
RFGGNPGGFG NQGGFGNSRG GGAGLGNNQG
SNMGGGMNFG AFSINPAMMA AAQAALQSSW
GMMGMLASQQ NQSGPSGNNQ NQGNMQREPN
QAFGSGNNSY SGSNSGAAIG WGSASNAGSG
SGFNNGFGSS MDSKSSGWGM
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**Predicted molecular weight** 49 kDa including tags

**Amino acids** 1 to 414

**Tags** His tag N-Terminus

### Specifications

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Our **Abpromise guarantee** covers the use of **ab156345** in the following tested applications.

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

**Applications** SDS-PAGE

**Form** Liquid

## Preparation and Storage

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**Stability and Storage** Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 8.00

Constituents: 2.4% Urea, 0.32% Tris HCl, 10% Glycerol

## General Info

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**Function** DNA and RNA-binding protein which regulates transcription and splicing. Involved in the regulation of CFTR splicing. It promotes CFTR exon 9 skipping by binding to the UG repeated motifs in the polymorphic region near the 3'-splice site of this exon. The resulting aberrant splicing is associated with pathological features typical of cystic fibrosis. May also be involved in microRNA biogenesis, apoptosis and cell division. Can repress HIV-1 transcription by binding to the HIV-1 long terminal repeat. Stabilizes the low molecular weight neurofilament (NFL) mRNA through a direct interaction with the 3' UTR.

**Tissue specificity** Ubiquitously expressed. In particular, expression is high in pancreas, placenta, lung, genital tract and spleen.

**Involvement in disease** Defects in TARDBP are the cause of amyotrophic lateral sclerosis type 10 (ALS10) [MIM:612069]. ALS is a neurodegenerative disorder affecting upper and lower motor neurons and resulting in fatal paralysis. Sensory abnormalities are absent. Death usually occurs within 2 to 5 years. The etiology of ALS is likely to be multifactorial, involving both genetic and environmental factors. The disease is inherited in 5-10% of the cases.

**Sequence similarities** Contains 2 RRM (RNA recognition motif) domains.

**Domain** The RRM domains can bind to both DNA and RNA.

**Post-translational modifications** Hyperphosphorylated in hippocampus, neocortex, and spinal cord from individuals affected with ALS and FTLDU.

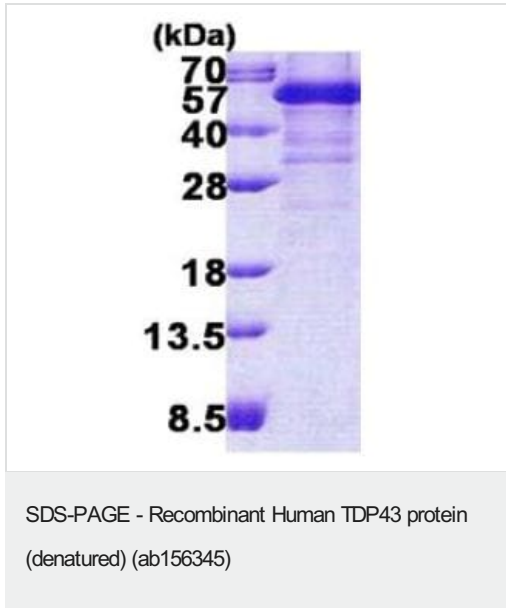
Ubiquitinated in hippocampus, neocortex, and spinal cord from individuals affected with ALS and FTLDU.

Cleaved to generate C-terminal fragments in hippocampus, neocortex, and spinal cord from individuals affected with ALS and FTLDU.

**Cellular localization** Nucleus. In patients with frontotemporal lobar degeneration and amyotrophic lateral sclerosis, it is absent from the nucleus of affected neurons but it is the primary component of cytoplasmic ubiquitin-positive inclusion bodies.

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## Images



15% SDS-PAGE analysis of 3µg ab156345.

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

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