

Synonym

75 kDa DNA-pairing protein,ALS6,amyotrophic lateral sclerosis 6,FUS1,fused in sarcoma,fus-like protein,Oncogene FUS,Oncogene TLS,RNA-binding protein FUS,POMP75,Translocated in liposarcoma,Translocated in liposarcoma protein

Source

Human FUS Protein, His Tag(FUS-H5144) is expressed from E. coli cells. It contains AA Met 1 - Tyr 526 (Accession # P35637-1).

Predicted N-terminus: Met

Molecular Characterization

MBP His FUS (1-526)

This protein carries a MBP tag at the N-terminus, followed by a polyhistidine tag.

The protein has a calculated MW of 97.0 kDa. The protein migrates as 95 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>85% as determined by SDS-PAGE.

Formulation

Lyophilized from $0.22~\mu m$ filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

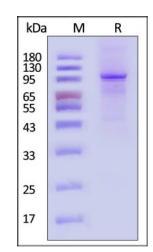
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



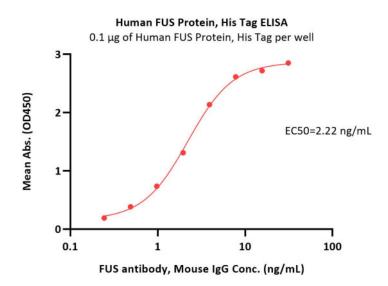
Human FUS Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 85% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

Bioactivity-ELISA

Human FUS Protein, His Tag

Catalog # FUS-H5144





Immobilized Human FUS Protein, His Tag (Cat. No. FUS-H5144) at 1 μ g/mL (100 μ L/well) can bind FUS antibody, Mouse IgG with a linear range of 0.2-4 ng/mL (QC tested).

Background

FUS (R-binding protein FUS) is a D/R-binding protein that plays a role in various cellular processes such as transcription regulation, R splicing, R transport, D repair and damage response. It binds to nascent pre-mRs and acts as a molecular mediator between R polymerase II and U1 small nuclear ribonucleoprotein thereby coupling transcription and splicing. It binds also its own pre-mR and autoregulates its expression; this autoregulation mechanism is mediated by non-sense-mediated decay.

FUS plays a role in D repair mechanisms by promoting D-loop formation and homologous recombination during D double-strand break repair. In neuronal cells, FUS plays crucial roles in dendritic spine formation and stability, R transport, mR stability and synaptic homeostasis.

Clinical and Translational Updates

