Active Full Length Recombinant Human FUS Protein, MBP&His tagged

Cat. No. FUS-5333H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human FUS Protein, MBP, His Tag is expressed from E. coli cells. It contains AA Met 1 - Tyr 526 (Accession # P35637-1). This protein carries a MBP tag at the N-terminus, followed by a polyhistidine tag. Predicted N-terminus: Met
Species	Human
Source	E. coli
ProteinLength	1-526 aa
Description	FUS (RNA-binding protein FUS) is a DNA/RNA-binding protein that plays a role in various cellular processes such as transcription regulation, RNA splicing, RNA transport, DNA repair and damage response. It binds to nascent pre-mRNAs and acts as a molecular mediator between RNA polymerase II and U1 small nuclear ribonucleoprotein thereby coupling transcription and splicing. It binds also its own pre-mRNA and autoregulates its expression; this autoregulation mechanism is mediated by non-sense-mediated decay. FUS plays a role in DNA repair mechanisms by promoting D-loop formation and homologous recombination during DNA double-strand break repair. In neuronal cells, FUS plays crucial roles in dendritic spine formation and stability, RNA transport, mRNA stability and synaptic homeostasis.
Form	Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.
Bio-activity	Immobilized Human FUS Protein, MBP, His Tag at 1

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	μg/mL (100 μL/well) can bind FUS antibody, Mouse IgG with a linear range of 0.2-4 ng/mL.
Molecular Mass	The protein has a calculated MW of 97.0 kDa. The protein migrates as 95 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE).
Purity	>85% as determined by SDS-PAGE.
Storage	This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 μg/μL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.

GENE INFORMATION

Gene Name	FUS fused in sarcoma [Homo sapiens (human)]
Official Symbol	FUS
Synonyms	FUS; fused in sarcoma; ALS6, amyotrophic lateral sclerosis 6, fusion (involved in t(12;16) in malignant liposarcoma), fusion, derived from t(12;16) malignant liposarcoma; RNA-binding protein FUS; FUS1; heterogeneous nuclear ribonucleoprotein P2; hnRNP P2; TLS; translocated in liposarcoma; oncogene FUS; oncogene TLS; fus-like protein; 75 kDa DNA-pairing protein; fusion gene in myxoid liposarcoma; translocated in liposarcoma protein; ALS6; POMP75; HNRNPP2;

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Gene ID	2521
mRNA Refseq	NM_001170634
Protein Refseq	NP_001164105
MIM	137070
UniProt ID	P35637

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