

FUS/TLS Monoclonal ANTIBODY

Catalog Number: 60160-1-Ig

Featured Product

10 Publications

Basic Information

Catalog Number:
60160-1-Ig

Size:
150 µg/150 µl

Source:
Mouse

Isotype:
IgG1

Purification Method:
Antigen affinity purification

Immunogen Catalog Number:
AG2150

GenBank Accession Number:
BC026062

GeneID (NCBI):
2521

Full Name:
fusion (involved in t(12;16) in malignant liposarcoma)

Calculated MW:
75 kDa

Observed MW:
75 kDa

Recommended Dilutions:

WB 1:500-1:2000

IP 0.5-4.0 µg for IP and 1:5000-1:50000 for WB

IHC 1:500-1:2500

IF 1:20-1:200

Applications

Tested Applications:
FC, IF, IHC, IP, WB, ELISA

Cited Applications:
IF, IHC, WB

Species Specificity:
human, mouse

Cited Species:
Drosophila, human

Note: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : K562 cells; K-562 cells

IP : HeLa cells;

IHC : human gliomas tissue; human ovary tumor tissue

IF : human brain(ALS) tissue;

Background Information

FUS (also named TLS and POMp75) belongs to the RRM/TET family. FUS may play a role in the maintenance of genomic integrity; it binds both single-stranded and double-stranded DNA and promotes ATP-independent annealing of complementary single-stranded DNAs and D-loop formation in superhelical double-stranded DNA. FUS is also an RNA-binding protein, and its links to neurodegenerative disease proffer the intriguing possibility that altered RNA metabolism or RNA processing may underlie or contribute to neuron degeneration. Two research groups simultaneously reported that FUS is present in 5% of the pathological aggregations (inclusions) seen in familial amyotrophic sclerosis (fALS). FUS-positive inclusions were also reported in cases of sporadic ALS (sALS). More recently, wild-type FUS has also been implicated in the pathological development of frontotemporal lobar dementia (FTLD) with ubiquitin-positive inclusions (FTLD-U), further linking FUS to the pathogenesis of neurodegenerative diseases. There is some debate as to whether FUS colocalizes with TDP-43 in TDP-43-positive cases of ALS and whether TDP-43 and FUS cause neurodegenerative disease independently or contributively of one another. This antibody is a mouse monoclonal antibody raised against an internal region of human FUS. Initial reports from our customers suggest this new monoclonal FUS antibody (60160-1-Ig) is a useful tool in ALS and FTLD research. For more details, please see our blog article regarding the matter.

Notable Publications

Author	Pubmed ID	Journal	Application
Liang Lu	25239623	J Biol Chem	WB
Bo Hu	27615052	Ann Neurol	WB, IF
Jianwen Deng	26335776	PLoS Genet	WB

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.1% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

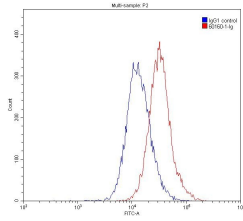
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

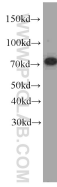
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

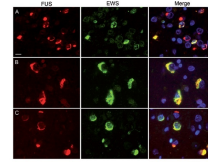
Selected Validation Data



1X10⁶ K-562 cells were stained with 0.20ug FUS/TLS antibody (60160-1-Ig, red) and control antibody (blue). Fixed with 90% MeOH

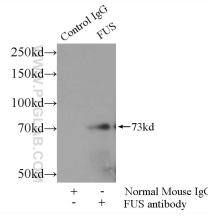


K-562 cells were subjected to SDS PAGE followed by western blot with 60160-1-Ig(FUS antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours

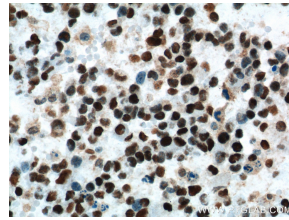


Validation of 60160-1-Ig in FUS/TLS detection. Immunofluorescence for FUS (left) and EWS (right), with DAPI staining of nuclei in the merged images. In respect to FUS, only a subset of FUS-positive neuronal cytoplasmic and intranuclear inclusions were stained by 60160-1-Ig. In contrast, when co-localizing for EWS and FUS was observed in most inclusions in NFD (B) and BBD (C).

IF result of McAB FUS(60160-1-Ig) in the Paper "FET proteins TAF15 and EWS are selective markers that distinguish FTLD with FUS pathology from amyotrophic lateral sclerosis with FUS mutations" from Manuela Neumann.



IP Result of anti-FUS/TLS (IP:60160-1-Ig, 4ug; Detection:60160-1-Ig 1:10000) with HeLa cells lysate 920ug.



Immunohistochemistry of paraffin-embedded human gliomas tissue slide using 60160-1-Ig(FUS/TLS Antibody) at dilution of 1:1000 (under 40x lens), heat mediated antigen retrieved with Tris-EDTA buffer(pH9).