#4885 Store at -20°C

FUS/TLS Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not For Use In Diagnostic Procedures.

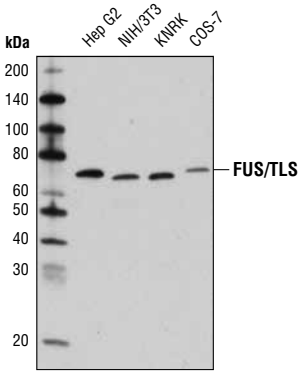
Entrez-Gene ID #2521
Swiss-Prot Acc. #P35637

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H, M, R, Mk, (Hm, B, Hr)	70 kDa	Rabbit**

Background: FUS/TLS (fused in sarcoma/translocated in liposarcoma) was initially identified by investigators as a component of fusion proteins found in a variety of cancers such as myxoid liposarcoma, acute myeloid leukemia, and Ewing's tumor (1). FUS/TLS fusion with the DNA binding domain of transcription activators such as CHOP and ERG leads to aberrant transcription of target genes that is thought by researchers to lead to tumor development (1-5). FUS/TLS is involved in a wide range of RNA processing events such as pre-mRNA splicing, mRNA transcription, and miRNA processing (1,6). In addition to its role in RNA metabolism, FUS/TLS maintains genomic stability and co-regulates gene expression by interacting with various transcription factors such as nuclear receptors, YB-1, p65 subunit of NF-κB, TFIID, and RUNX2 (1,6,7). More recently, researchers have found several mutations of FUS/TLS in ALS (amyotrophic lateral sclerosis) and FTLD (frontotemporal lobar degeneration) patients that causes cytoplasmic mislocalization of FUS/TLS (6,8-11).

Specificity/Sensitivity: FUS/TLS Antibody recognizes endogenous levels of total FUS/TLS protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly272 of human TLS/FUS protein. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from various cell lines using FUS/TLS Antibody.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:
Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

(1) Yang, S. et al. (2010) *Int J Biochem Cell Biol* 42, 1408-11.
(2) Crozat, A. et al. (1993) *Nature* 363, 640-4.
(3) Rabbitts, T.H. et al. (1993) *Nat Genet* 4, 175-80.
(4) Law, W.J. et al. (2006) *Brief Funct Genomic Proteomic* 5, 8-14.
(5) Prasad, D.D. et al. (1994) *Oncogene* 9, 3717-29.
(6) Lagier-Tourenne, C. et al. (2010) *Hum Mol Genet* 19, R46-64.
(7) Baechtold, H. et al. (1999) *J Biol Chem* 274, 34337-42.
(8) Hewitt, C. et al. (2010) *Arch Neurol* 67, 455-61.
(9) Vance, C. et al. (2009) *Science* 323, 1208-11.
(10) Van Langenhove, T. et al. (2010) *Neurology* 74, 366-71.
(11) Da Cruz, S. and Cleveland, D.W. (2011) *Curr Opin Neurobiol* 21, 904-19.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.