

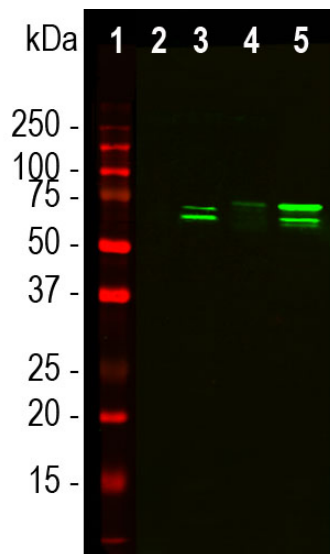
Ordering Information
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HGNC Name: TAF15
UniProt: Q92804
RRID: AB_2572388
Immunogen: Full length recombinant human TAF15 expressed in and purified from *E. coli*.
Format: Purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM Na₂S₂O₃
Storage: Stable at 4°C for one year, for longer term store at -20°C
Recommended dilutions:
 WB 1:1,000. IF/ICC: 1:500-1:1,000. IHC not recommended

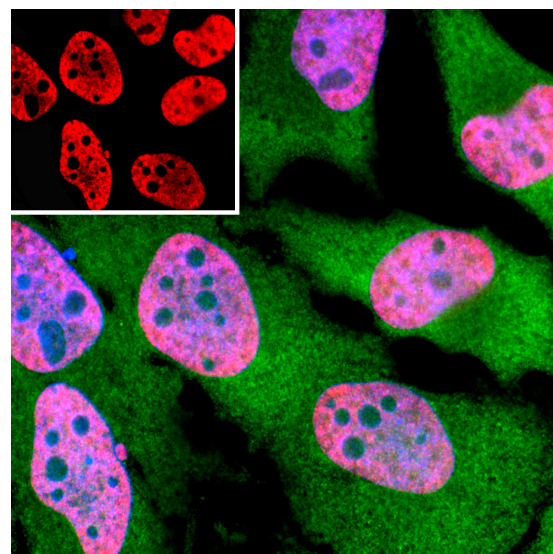
References:

1. Morohoshi F, et al. Cloning and mapping of a human RBP56 gene encoding a putative RNA binding protein similar to FUS/TLS and EWS proteins. *Genomics* 38:51-7 (1996).
2. Andersson MK, et al. The multifunctional FUS, EWS and TAF15 proto-oncoproteins show cell type-specific expression patterns and involvement in cell spreading and stress response. *BMC Cell Biol.* 11:9:37 (2008).
3. Law WJ, Cann KL, Hicks GG. TLS, EWS and TAF15: a model for transcriptional integration of gene expression. *Brief Funct. Genomic Proteomic.* 5:8-14 (2006).
4. Ticozzi N, et al. Mutational analysis reveals the FUS homolog TAF15 as a candidate gene for familial amyotrophic lateral sclerosis. *Am J Med Genet B Neuropsychiatr Genet.* 156B:285-90 (2011).
5. Da Cruz S, Cleveland DW. Understanding the role of TDP-43 and FUS/TLS in ALS and beyond. *Curr. Opin. Neurobiol.* 21:904-19 (2011).
6. Couthouis J, et al. A yeast functional screen predicts new candidate ALS disease genes. *PNAS* 108:20881-90 (2011).

Applications	Host	Isotype	Molecular Wt.	Species Cross-Reactivity
WB, IF/ICC	Mouse	IgG1	56, 68kDa	Hu, Rt, Ms



Western blot analysis of cytosol or nuclear enriched fractions of cell line lysates using mouse mAb to TAF15, MCA-4D71, dilution 1:1,000: [1] protein standard, [2] NIH-3T3 cytosol, [3] NIH-3T3 nuclear fraction, [4] HeLa cytosol, and [5] HeLa nuclear fraction. Double band at 56kDa and 68kDa detected predominantly in the nuclear enriched fraction corresponds to the TAF15 protein.



Immunofluorescent analysis of HeLa cells stained with mouse mAb to TATA-box binding protein associated factor 15, TAF15, MCA-4D71, dilution 1:500 in red, and costained with rabbit pAb to GAPDH, RPCA-GAPDH, dilution 1:1,000 in green. Blue is Hoechst staining of nuclear DNA. The MCA-4D71 antibody reveals TAF15 protein expressed exclusively in the nuclei of the cells, while GAPDH antibody produces strong cytoplasmic staining.

Background:

TATA-binding protein-associated factor 2N, also known as TATA-binding protein-associated factor 15 (TAF15) is a protein containing a single RNA recognition motif domain and a Zinc finger domain. An alternate for TAF15 is RBP56, for RNA binding protein 56kDa (1). It is a member of a family of 3 closely related mammalian RNA binding proteins, the other two members are being FUS/TLS and EWSR1 (2,3). TDP43 is a more distant relative of these three, and all four proteins have been implicated in various ways the etiology of various neurological diseases and cancers. Like TDP43, FUS/TLS and EWSR1, TAF15 is normally widely expressed in tissues and is localized primarily in the nucleus of cells (2,3). Point mutations in TAF15 may be associated with some forms of Lou Gehrig's disease, also known as amyotrophic lateral sclerosis or ALS (4). FUS/TLS and TDP43 protein mutations and aggregation were previously known in various kinds of neurological disease including ALS and the related disease frontotemporal lobar degeneration (5). Some forms of cancer are caused by aberrant chromosomal fusions resulting in the production of oncoproteins containing segments of TAF15 fused to regions of other molecules, the same mechanism seen with FUS/TLS and especially EWSR1 (3). A screen for proteins likely to aggregate in yeast and *Drosophila* models also suggest TAF15 as a potential aggregation prone and disease causing protein when mutated, again like FUS/TLS, EWSR1 and TDP43 (6).

The MCA-4D71 was made against full length human TAF15 expressed in and purified from *E. coli*. The TAF15 protein is heavily expressed in the nucleus, and our antibody is therefore a useful marker of the nuclear fraction of biochemical preparations. The antibody works well on western blots and for IF and ICC but is not recommended for IHC. We also supply antibodies to EWSR1 and TDP43, MCA-5H7 and MCA-3H8 respectively.

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Abbreviation Key:

mAb—Monoclonal Antibody pAb—Polyclonal Antibody WB—Western Blot IF—Immunofluorescence ICC—Immunocytochemistry
 IHC—Immunohistochemistry E—ELISA Hu—Human Mo—Monkey Do—Dog Rt—Rat Ms—Mouse Co—Cow Pi—Pig Ho—Horse Ch—Chicken
 Dr—D. rerio Dm—D. melanogaster Sm—S. mutans Ce—C. elegans Sc—S. cerevisiae Sa—S. aureus Ec—E. coli.