

Phospho-TDP43 (Ser409/410) Monoclonal antibody

 Catalog Number: 66318-1-Ig **19 Publications**

Basic Information

Catalog Number: 66318-1-Ig	GenBank Accession Number: NM_007375	Purification Method: Protein G purification
Concentration: 1500 ug/ml	GeneID (NCBI): 23435	CloneNo.: 1A2C1
Source: Mouse	UNIPROT ID: Q13148	Recommended Dilutions: WB: 1:500-1:2000
Isotype: IgG1	Full Name: TAR DNA binding protein	
	Calculated MW: 43 kDa	
	Observed MW: 45-50 kDa, 35 kDa	

Applications

Tested Applications: WB, ELISA	Positive Controls: WB : EA treated HeLa cells, HEK-293 cells, human placenta tissue, Neuro-2a cells, C6 cells
Cited Applications: WB, IHC, IF	
Species Specificity: human, mouse, rat	
Cited Species: human, mouse, rat, canine	

Background Information

The TARDBP gene encodes the TDP-43 protein, initially found to repress HIV-1 transcription by binding TAR DNA. TDP-43 has since been shown to bind RNA as well as DNA, and have multiple functions in transcriptional repression, translational regulation and pre-mRNA splicing. For instance, it is reported to regulate alternate splicing of the CTFR gene. In 2006 Neumann et al. found that hyperphosphorylated, ubiquitinated and/or cleaved forms of TDP-43, collectively known as pathological TDP-43, play a major role in the disease mechanisms of ubiquitin-positive, tau- and alpha-synuclein-negative frontotemporal dementia (FTLD-U) and in amyotrophic lateral sclerosis (ALS). Various forms of TDP-43 exist, including 18-35 kDa of cleaved C-terminal fragments, 45-50 kDa phospho-protein, 55 kDa glycosylated form, 75 kDa hyperphosphorylated form, and 90-300 kDa cross-linked form. (PMID: 17023659, 19823856, 21666678, 22193176). 66318-1-Ig is a phospho-dependent monoclonal antibody specifically recognizing phospho-TDP43 (409/410). It does not react with native TDP-43.

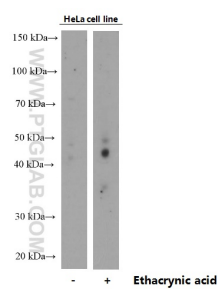
Notable Publications

Author	Pubmed ID	Journal	Application
Sadhana Ravikumar	34689831	Acta Neuropathol Commun	IHC
Yasar Arfat T Kasu	29987190	Mol Cell Biol	WB, IF
David A Hicks	31280399	Neurochem Res	WB

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
 Aliquoting is unnecessary for -20°C storage

Selected Validation Data



Untreated and EA treated HeLa cells were subjected to SDS PAGE followed by western blot with 66318-1-Ig (Phospho-TDP43 (Ser409/410) Antibody) at dilution of 1:850 incubated at room temperature for 1.5 hours.