RDsystems a biotechne brand

Human Phospho-elF2α (S52) Antibody

Monoclonal Rat IgG_{2B} Clone # 849159 Catalog Number: MAB39971

DESCRIPTION

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Species Reactivity	Human				
Specificity	Detects human Phospho-eIF2α (S52) in ELISAs and Western blots.				
Source	Monoclonal Rat IgG _{2B} Clone # 849159				
Purification	Protein A or G purified from hybridoma culture supernatant				
Immunogen	Phosphopeptide containing the human eIF2α S52 site Accession # P05198				
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.				

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

		Recommended Concentration	Sample
Nestern Blot		1 µg/mL	See Below
ATA			
Western Blot <u>Hela</u> - + iba +	-	Detection of Human Phospho- (S52) by Western Blot. Western lysates of HeLa human cervical ep carcinoma cell line and HEK293T embryonic kidney cell line untreate treated (+) with 100nM Calyculin <i>A</i> (Catalog # 1336) and 20 ng/mL Rt Human TNF-α (Catalog # 210-TA minutes or 20 mJ/cm2 ultraviolet 1 followed by a 30 minute recovery. F membrane was probed with 1 µg/n	blot shows ithelial human d (-) or A ecombinant s) for 10 ight (UV) PVDF

Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
	 12 months from date of receipt, -20 to -70 °C as supplied.
	 1 month, 2 to 8 °C under sterile conditions after reconstitution.
	 6 months, -20 to -70 °C under sterile conditions after reconstitution.

Sterile PBS to a final concentration of 0.5 mg/mL.

Monoclonal Antibody (Catalog # MAB39971) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # HAF005). A specific band was detected for Phospho $elF2\alpha$ (S52) at approximately 38 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

BACKGROUND

Reconstitution

PREPARATION AND STORAGE

Eukaryotic translation initiation factor 2 alpha subunit (eIF2a) is a subunit of the eIF2 protein, an important regulator of translation initiation. Phosphorylation of eIF2a on Ser 52 increases the affinity of eIF2a for eIF2B, a guanine nucleotide exchange factor needed for the recycling of eIF2-GDP to eIF2-GTP. Reduction of eIF2-GTP levels leads to the suppression of the overall rate of protein synthesis. Heme-regulated inhibitor (HRI), ER-resident protein kinase PERK, dsRNA activated protein kinase PKR, and the homologue of the S. cerevisiae protein kinase GCN2 are all eIF2 α kinases.

Rev. 8/31/2018 Page 1 of 1



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