

DESCRIPTION

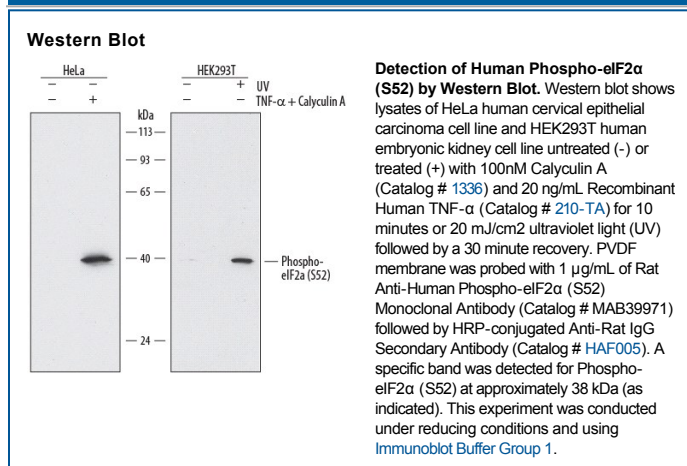
Species Reactivity	Human
Specificity	Detects human Phospho-eIF2 α (S52) in ELISAs and Western blots.
Source	Monoclonal Rat IgG _{2B} Clone # 849159
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Phosphopeptide containing the human eIF2 α S52 site Accession # P05198
Formulation	Lyophilized from a 0.2 μ m 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 μ m 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
Western Blot	1 μ g/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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. <ul style="list-style-type: none"> 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.

BACKGROUND

Eukaryotic translation initiation factor 2 alpha subunit (eIF2 α) is a subunit of the eIF2 protein, an important regulator of translation initiation. Phosphorylation of eIF2 α on Ser 52 increases the affinity of eIF2 α 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.