

## DESCRIPTION

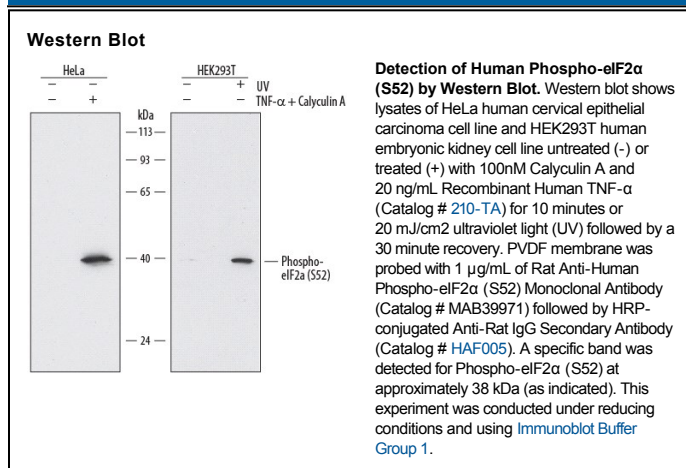
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Phospho-eIF2 $\alpha$ (S52) in ELISAs and Western blots.
<b>Source</b>	Monoclonal Rat IgG <sub>2B</sub> Clone # 849159
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Phosphopeptide containing the human eIF2 $\alpha$ S52 site Accession # P05198
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 $\mu$ 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
<b>Western Blot</b>	1 $\mu$ g/mL	See Below

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

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