Human Phospho-eIF2α (S52) Antibody  
Monoclonal Rat IgG2B Clone # 849159  
Catalog Number: MAB39971

**DESCRIPTION**
Species Reactivity: Human
Specificity: Detects human Phospho-eIF2α (S52) in ELISAs and Western blots.
Source: Monoclonal Rat IgG2B 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.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Recommended Concentration</th>
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<tr>
<td>Western Blot</td>
<td>1 μg/mL</td>
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**DATA**
Western Blot

**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.
- 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 (eIF2α) is a subunit of the eIF2 protein, an important regulator of translation initiation. Phosphorylation of eIF2α on Ser 52 increases the affinity of eIF2α 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 eIF2α kinases.