

DESCRIPTION

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
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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.

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