

DESCRIPTION

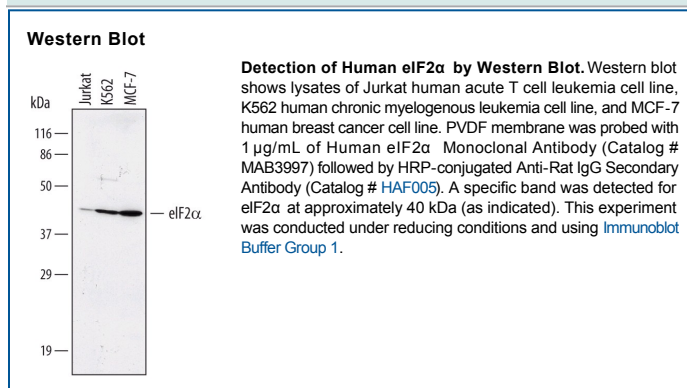
Species Reactivity	Human
Specificity	Detects endogenous human eIF2 α in Western blots.
Source	Monoclonal Rat IgG _{2B} Clone # 430516
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human eIF2 α Met1-Asp315 Accession # Q53XC0
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

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	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month from date of receipt, 2 to 8 °C, reconstituted. ● 6 months from date of receipt, -20 to -70 °C, reconstituted.

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 51 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.