

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                           |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human eIF4B when phosphorylated at S422                                 |
| <b>Source</b>                                                                                                                                                                                           | Monoclonal Rat IgG <sub>2A</sub> Clone # 866049                                 |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from hybridoma culture supernatant                      |
| <b>Immunogen</b>                                                                                                                                                                                        | Phosphopeptide containing the human eIF4B S422 site                             |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 nm |
| <b>Formulation</b>                                                                                                                                                                                      | 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

eIF4B (eukaryotic translation initiation factor 4B), an RNA binding protein, is essential for the binding of mRNA to the 43S pre-initiation complex, which consists of the 40S ribosomal subunit bound to a ternary complex of eIF2, GTP, and Met-tRNA stabilized by eIF3. An arginine rich motif (ARM) in the carboxy-terminus of eIF4B binds RNA non-specifically, while a canonical RNA motif (RMM) near the amino terminus binds specifically to 18S rRNA. The simultaneous binding of specific and nonspecific RNA may serve to facilitate the binding of the 40S subunit to the mRNA by serving as a bridge between the 18S rRNA and the mRNA. Besides its binding activity, eIF4B in conjunction with the heterotrimeric eIF4F, stimulates the ATPase and RNA helicase activity of eIF4E.

## PRODUCT SPECIFIC NOTICES

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