

**DESCRIPTION**

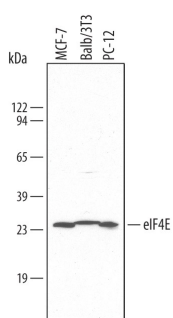
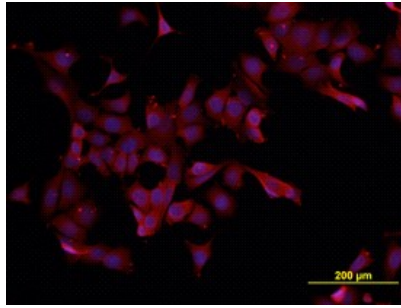
<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human, mouse and rat eIF4E.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 299910
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human eIF4E Met1-Val217 Accession # P06730
<b>Formulation</b>	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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	See Below
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below

**DATA**

<p><b>Western Blot</b></p>  <p><b>Detection of Human/Mouse/Rat eIF4E by Western Blot.</b> Western blot shows lysates of MCF-7 human breast cancer cell line, Balb/3T3 mouse embryonic fibroblast cell line, and PC-12 rat adrenal pheochromocytoma cell line. PVDF membrane was probed with 0.1 µg/mL of Mouse Anti-Human/Mouse/Rat eIF4E Monoclonal Antibody (Catalog # MAB3228) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for eIF4E at approximately 25 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p><b>Immunocytochemistry</b></p>  <p><b>eIF4E in MCF-7 Human Cell Line.</b> eIF4E was detected in immersion fixed MCF-7 human breast cancer cell line using 10 µg/mL Mouse Anti-Human/Mouse/Rat eIF4E Monoclonal Antibody (Catalog # MAB3228) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). View our protocol for <a href="#">Fluorescent ICC Staining of Cells on Coverslips</a>.</p>
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**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<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**

eIF4E (eukaryotic initiation factor 4E) interacts with the 7-methyl-GTP cap structure to facilitate the initiation and rate of translation of mRNA. Together with eIF4G and eIF4A, it forms the eIF4F complex. eIF4E activity has been shown to play a role in cell cycle progression, tumorigenesis, embryonic development, nuclear export and synaptic plasticity.