

## DESCRIPTION

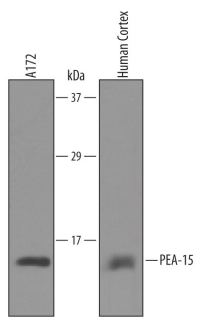
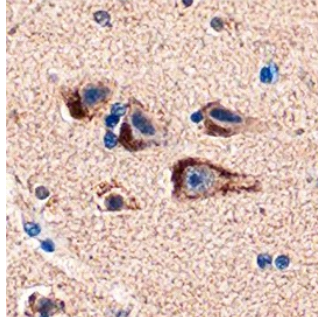
<b>Species Reactivity</b>	Human/Mouse
<b>Specificity</b>	Detects human and mouse PEA-15 in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human PEA-15 Ala2-Ala130 Accession # Q15121
<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 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.

	Recommended Concentration	Sample
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below

## DATA

<p><b>Western Blot</b></p>  <p><b>Detection of Human PEA-15 by Western Blot.</b> Western blot shows lysates of A172 human glioblastoma cell line and human cortex tissue. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human/Mouse PEA-15 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5588) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for PEA-15 at approximately 15 kDa (as indicated). This experiment was conducted under reducing conditions and using <a href="#">Immunoblot Buffer Group 8</a>.</p>	<p><b>Immunohistochemistry</b></p>  <p><b>PEA-15 in Human Brain.</b> PEA-15 was detected in immersion fixed paraffin-embedded sections of human brain (cortex) using Sheep Anti-Human/Mouse PEA-15 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5588) at 1 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to neurons. View our protocol for <a href="#">Chromogenic IHC Staining of Paraffin-embedded Tissue Sections</a>.</p>
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## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 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

PEA-15 (Phosphoprotein Enriched in Astrocytes of 15 kDa) is a 15 kDa cytoplasmic protein that regulates cell proliferation and apoptosis. It is expressed in multiple cell types such as astrocytes; skeletal muscle and adipocytes. Human PEA-15 is 130 amino acids (aa) in length. It contains a death effector domain (aa 3-81), plus two regulatory Ser phosphorylation sites. In a quiescent cell, it is either non-phosphorylated or constitutively phosphorylated at Ser116. Non-phosphorylated PEA-15 binds ERK, inhibiting cell proliferation. Phosphorylation at Ser116 promotes PEA-15 binding to FADD, blocking apoptosis. And activation-induced phosphorylation at Ser104 blocks PEA-15 binding to ERK, promoting cell proliferation. There is one potential alternate start site 21 aa upstream of the standard start site, and a second isoform that shows an Asn substitution for aa 36-58. Full-length human and mouse PEA-15 show 99% aa identity.