

DESCRIPTION	
<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human and mouse Enolase 2/Neuron-specific Enolase in direct ELISAs. Detects human, mouse, and rat Enolase 2/Neuron-specific Enolase in Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Enolase 2/Neuron-specific Enolase Met1-Leu434 Accession # P09104
<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.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.2-1 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below
<b>Simple Western</b>	10 µg/mL	See Below

**DATA**

**Western Blot**

**Detection of Human/Mouse Enolase 2 by Western Blot.** Western blot shows lysates of human brain tissue, mouse brain tissue, and BG01V human embryonic stem cells. PVDF membrane was probed with 1 µg/mL of Human/Mouse Enolase 2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5169) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Enolase 2 at approximately 46 kDa (as indicated). This experiment was conducted under reducing conditions and using *Immunoblot Buffer Group 8*.

**Western Blot**

**Detection of Rat Enolase 2/Neuron-specific Enolase by Western Blot.** Western blot shows lysates of rat brain tissue, rat cerebellum tissue, and rat olfactory bulb tissue. PVDF membrane was probed with 0.2 µg/mL of Sheep Anti-Human/Mouse Enolase 2/Neuron-specific Enolase Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5169) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Enolase 2/Neuron-specific Enolase at approximately 47 kDa (as indicated). This experiment was conducted under reducing conditions and using *Immunoblot Buffer Group 1*.

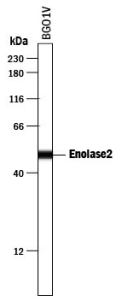
**Immunohistochemistry**

**Enolase 2 in Human Brain.** Enolase 2 was detected in immersion fixed paraffin-embedded sections of human brain (cortex) using Human/Mouse Enolase 2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5169) at 10 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

**Immunohistochemistry**

**Enolase 2 in Human Brain.** Enolase 2 was detected in immersion fixed paraffin-embedded sections of human brain (cortex) using Human/Mouse Enolase 2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5169) at 10 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

**Simple Western**



**Detection of Human Enolase 2/Neuron-specific Enolase by Simple Western™.**  
Simple Western lane view shows lysates of BG01V human embryonic stem cells, loaded at 0.2 mg/mL. A specific band was detected for Enolase 2/Neuron-specific Enolase at approximately 50 kDa (as indicated) using 10 µg/mL of Sheep Anti-Human/Mouse Enolase 2/Neuron-specific Enolase Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5169) followed by 1:50 dilution of HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

**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**

Enolase 2 (2-phospho-D-glycerate hydrolyase; also neural enolase and γ-enolase) is a 46 kDa member of the Enolase family of enzymes. It is expressed in developing neurons and glia, is known to catalyze the generation of phosphoenolpyruvate, and is suggested to possess neurotrophic activity for neurons, likely through an extracellular mechanism. Human Enolase 2 is 434 amino acids (aa) in length. The enzymatic site spans most of the length of the molecule. Enolase 2 exists as both a noncovalently-linked homodimer, or heterodimer with α-enolase. Full-length human Enolase 2 is 99% aa identical to both mouse and canine Enolase 2. It shares 83% aa identity with human enolases # 1 and # 3.