

## DESCRIPTION

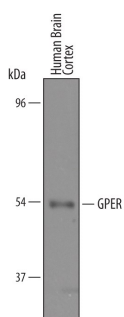
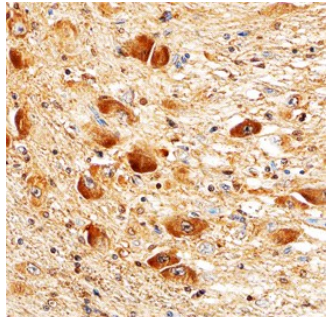
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human GPER in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human GPR144, GPR115, and GPR124 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human GPER Met1-Ser62 Accession # Q99527
<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 GPER by Western Blot.</b> Western blot shows lysates of human brain cortex tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human GPER Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5534) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for GPER at approximately 54 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>GPER in Human Brain.</b> GPER was detected in immersion fixed paraffin-embedded sections of human brain (hypothalamus) using Goat Anti-Human GPER Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5534) at 10 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to neuronal cell bodies. 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

GPER (G-Protein Coupled Estrogen Receptor 1; also GPR30, DRY12 and mER) is a 44 kDa, seven transmembrane (TM) member of the GPR-1 family of molecules. It is ubiquitously expressed, appearing on/in neurons, monocytes and endothelial cells. Its exact location is unclear; it has been described in both the cell membrane and ER, but not by all investigators. Human GPER is 375 amino acids (aa) in length. It contains an N-terminal extracellular region (aa 1-62), a series of seven TM domains (aa 63-327), and a C-terminal cytoplasmic tail (aa 328-375). The initial function attributed to GPER was that of a membrane receptor for estrogen. This is in dispute. There are two potential splice variants for GPER. One shows a deletion of aa 32-49, while a second shows a 99 aa substitution for aa 308-375. Over aa 1-62, human GPER shares 57% aa identity with mouse GPER.