

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human PER1 in direct ELISAs.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human PER1 Ser159-Thr365 Accession # O15534
<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>Immunohistochemistry</b>	5-15 µg/mL	Immersion fixed paraffin-embedded sections of human brain (cortex and hypothalamus)

#### 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

PER1 (Period circadian protein 1; also known as RIGU1) is a 188 kDa member of the PER family of molecules. It apparently influences circadian rhythms by interacting with, and stabilizing, other circadian regulatory proteins. PER1 undergoes extensive phosphorylation that may regulate its intracellular localization. Human PER1 is 1290 amino acids (aa) in length. It contains a bHLH region (aa 122-173), an extended PAS domain (aa 183-463) plus an NLS and NES. Multiple splice forms exist. Two show deletions (aa 741-820 and aa 209-217), while two show aa substitutions: 9 aa for the C-terminal 1005 aa, and 29 aa for the C-terminal 747 amino acids. Over aa 159-365, human PER1 is 96% identical to mouse, rat, and dog PER1.