

#### 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<br>Ser159-Thr365<br>Accession # O15534 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 700<br>Excitation Wavelength: 675-700 nm<br>Emission Wavelength: 723 nm   |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                          |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                       |

#### 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.

**Immunohistochemistry** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

PER1 (Period circadian protein 1; also known as RIGUI) 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.

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