

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human/Mouse/Rat                                                                                                                                                                                                                                                             |
| <b>Specificity</b>        | Detects recombinant human POR/Cytochrome P450 Reductase in direct ELISAs and human, mouse, and rat POR/Cytochrome P450 Reductase in Western blots.                                                                                                                          |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>S. frugiperda</i> insect ovarian cell line Sf 21-derived human POR/Cytochrome P450 Reductase<br>Arg45-Ser677<br>Accession # P16435                                                                                                                                       |
| <b>Conjugate</b>          | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

#### BACKGROUND

NADPH-Cytochrome P450 Reductase (P450R) is an essential component of the cytochrome P450 monooxygenase system of eukaryotic cells (1). P450R is anchored in the endoplasmic reticulum membrane with its catalytic domain residing in the cytosol. P450R is a flavoprotein, containing one molecule each of FMN and FAD, which are essential for the transfer of electrons from NADPH to the cytochromes P450 (2). This reduction is necessary for cytochromes P450 to perform each cycle of oxidation. P450R is also capable of transferring electrons to cytochrome b<sub>5</sub>, heme oxygenase, the fatty acid elongation system, and other proteins. Mutations of P450R can result in disordered steroidogenesis and Antley-Bixler syndrome.

#### PRODUCT SPECIFIC NOTICES

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