

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Presenilin-2 N-Terminal Fragment in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human Presenilin-1 N-Terminal Fragment (aa 1-80) and recombinant human Presenilin-2 C-Termin                            |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human Presenilin-2<br>Leu2-Thr80<br>Accession # P49810                                                                                                                                                                                  |
| <b>Conjugate</b>          | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 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.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | 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

Presenilin-2 (PS-2 and PSEN2) is a catalytic subunit of the gamma-secretase complex. Presenilin-2 may play a role in intracellular signaling and gene expression or in linking chromatin to the nuclear membrane. Heterogeneous proteolytic processing of Presenilin-2 generates N-terminal (aa 1-297) and C-terminal (aa 298-248) fragments. Presenilin 1 and Presenilin 2 determine gamma-secretase activity, which is responsible for cleaving the amyloid precursor protein (APP). In turn, APP cleavage can produce amyloid-beta, which is the primary component of plaques in the brains of Alzheimer's disease patients. Full length, approximately 50 kDa, and the approximately 30 kDa N-terminal fragment of Presenilin-2 were identified by western blotting in extracted rodent pancreas but only the 30 kDa fragment was detected in mouse islets and human insulinoma. Within a sequence correspondent to the immunogen, human PS-2 shares 87% aa sequence identity with mouse and rat PS-2.

## PRODUCT SPECIFIC NOTICES

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