

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human NLRP1/NALP1 in direct ELISAs.                                                                                                                                                                                                                                 |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2B</sub> Clone # 447916                                                                                                                                                                                                                           |
| <b>Purification</b>       | Protein A or G purified from cell culture supernatant                                                                                                                                                                                                                       |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human NLRP1/NALP1<br>Gly1331-Leu1429<br>Accession # Q9C000                                                                                                                                                                              |
| <b>Conjugate</b>          | Alexa Fluor 350<br>Excitation Wavelength: 346 nm<br>Emission Wavelength: 442 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.

**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

NALP1 (Nacht, Leucine-rich repeat and PYD domain containing protein 1; also NAC, CARD7, DEFCAP and CLR17.1) is a 160-170 kDa member of the NLRP family of molecules. It is expressed in dendritic cells, neutrophils, T and B cells, alveolar macrophages, permatogonia, neurons, plus intestinal columnar epithelium, and is found in both cytoplasm and nucleus. NALP1 promotes apoptosis plus IL-1 $\beta$  and IL-18 maturation by activating caspase-1 and -5. It does so by forming a 700 kDa inflammasome comprised of NALP1, ASC plus caspase-1 and -5. Bacterial wall peptidoglycan binds to NALP1, promoting ATP binding, NALP1 oligomerization, and caspase activation. Human NALP1 is 1473 amino acids (aa) in length. It contains an N-terminal DAPIN domain (aa 1-92), a NACHT domain (aa 328-637), seven consecutive LRRs (aa 704-1236) and one CARD region (aa 1374-1463). Alternate splice forms exist that range in size from 70 kDa-150 kDa. Either individually, or in combination, there can be a 19 aa substitution for either aa 1353-1473 or aa 1368-1472, a deletion of aa 91-260, 958-987 or 1262-1305, and a 43 aa insert after Leu785. Over aa 1-323, human NALP1 shares less than 20% aa identity with mouse NALP1.

#### PRODUCT SPECIFIC NOTICES

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