

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human NLRP3/NALP3 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) NALP1 and rhNALP2 is observed.                                                                                                    |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human NLRP3/NALP3<br>Ala4-Val223<br>Accession # Q96P20                                                                                                                                                                                  |
| <b>Conjugate</b>          | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 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>Immunocytochemistry</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

NALP3 (NACHT, Leucine-rich repeat and PYD domain containing protein 3; also PYPAF1, CIAS1 and CLR1.1) is a cytoplasmic 115-130 kDa member of the NLRP family of molecules. It is selectively expressed, being found in stratified squamous and transitional epithelium, Hassell's corpuscles, neutrophils, dendritic cells and T cells. NALP3 promotes IL-1 $\beta$  and IL-18 maturation by activating caspase-1. It does so by forming a NALP3 inflammasome comprised of NALP3, ASC and caspase-1. Bacterial RNA and cell wall peptidoglycan can bind to NALP3, promoting (potentially) ATP binding, NALP3 oligomerization, and caspase activation. Human NALP3 is 1036 amino acids (aa) in length. It contains an N-terminal DAPIN domain (aa 1-93), a NACHT domain (aa 220-536), and seven consecutive LRRs (aa 740-991). Alternate splice forms are reported. Either individually, or in combination, there can be deletions of aa 836-892 or 721-777, and a premature truncation after Gly719 that generates a 70 kDa isoform. Over aa 3-223, human NALP3 shares 76% aa identity with mouse NALP3.

#### PRODUCT SPECIFIC NOTICES

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