

**DESCRIPTION**

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human NLRP3/NALP3 in direct ELISAs. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) NALP1, rhNALP2, and rhNALP5 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human NLRP3/NALP3 Lys540-Lys689 Accession # Q96P20
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

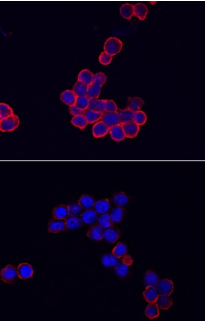
**APPLICATIONS**

**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>Recommended Concentration</b>	<b>Sample</b>
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below

**DATA**

**Immunocytochemistry**



**NLRP3/NALP3 in THP-1 Human Cell Line.** NLRP3/NALP3 was detected in immersion fixed THP-1 human acute monocytic leukemia cell line, unstimulated (lower panel) or stimulated (upper panel) with 50 ng/mL PMA and 200 ng/mL LPS, using Goat Anti-Human NLRP3/NALP3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7010) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cell surfaces and cytoplasm. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.2 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

NALP3 (Nacht, Leucinerichrepeat 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-1β 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.