

## DESCRIPTION

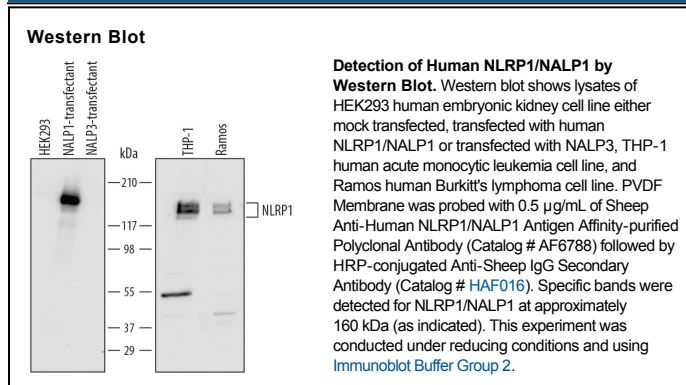
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human NLRP1/NALP1 in direct ELISAs and Western blots. In direct ELISAs, less than 2% cross-reactivity with recombinant human (rh) NALP2 and rhNALP3 is observed.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human NLRP1/NALP1 Met1-Asp323 (Leu155His) Accession # Q9C000
<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 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.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.5 µg/mL	See Below

## DATA



## 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

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-1β 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.