

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human NLRP1/NALP1 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 447916
Purification	Protein A or G purified from cell culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human NLRP1/NALP1 Gly1331-Leu1429 Accession # Q9C000
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	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 β 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.

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