

DESCRIPTION

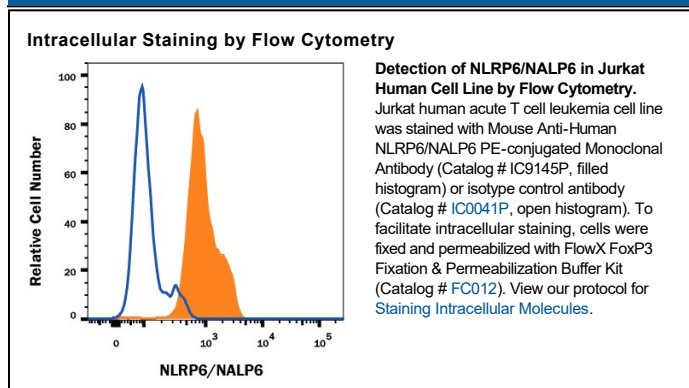
Species Reactivity	Human
Specificity	Detects human NLRP6/NALP6 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 920631
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E.coli</i> -derived recombinant human NLRP6/NALP6 Lys35-Arg193 Accession # P59044
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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.

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	10 µL/10 ⁶ cells	See Below

DATA



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

NLRP6 (Nod-Like Receptor Pyrin domain-containing protein 6), also known as NALP6, PYPAF5 and PAN3, is an 80-85 kDa cytoplasmic member of the NLRP family of proteins. Human NLRP6 is 892 amino acids (aa) in length, and contains an N-terminal Pyrin domain (aa 1-103), one Nacht region (aa 197-350), and five consecutive C-terminal leucine-rich repeats (aa 462-868). It is expressed in select cell types, including eosinophils, neutrophils, CD4+ and CD8+ T cells, neurons, myofibroblasts, and intestinal goblet cells plus columnar epithelium. NLRP6 is perhaps best known for its participation in the formation of inflammasomes. Inflammasomes are oligomeric intracellular complexes that serve as detectors for "danger signals" that appear following microbial invasion or unexpected cell death. Following detection, recruited components to the complex (such as Caspase-1) are activated, and subsequently themselves serve to activate pro-IL-1β and IL-18. The actual detection of these signals is mediated by the NLRP family, possibly in a tissue specific manner. NLRP6 has been identified in both damaged peripheral nerve and intestinal epithelium. In goblet cells, NLRP6 drives mucus secretion; in intestinal columnar epithelium, NLRP6 acts as a homeostatic agent that promotes epithelial barrier integrity. It accomplishes this by inducing mature IL-18 secretion, a step that then reduces IL-22BP production and leads to an increase in IL-22, a cytokine known for its pro-mucosal homeostatic properties. Although most insults to the intestinal mucosa likely arise from bacteria, NLRP6 is also known to recognize dsRNA-based viruses such as norovirus, and induce the expression of antiviral cytokines such as IFN-α, -β and -λ. Over aa 35-193, human NLRP6 shares 69% aa sequence identity with mouse NLRP6.