

DESCRIPTION

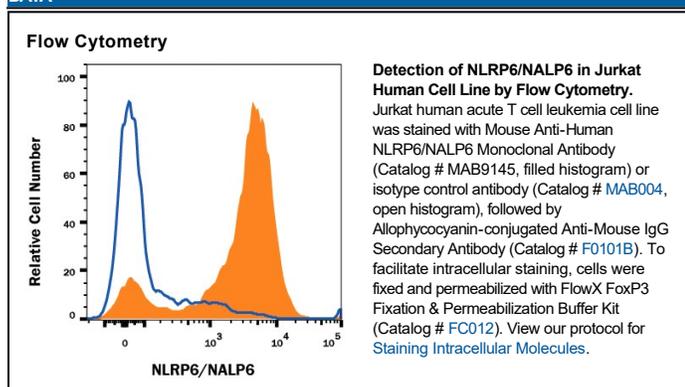
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|---------------------------|---|
| Species Reactivity | Human |
| Specificity | Detects human NLRP6/NALP6 in direct ELISAs. |
| Source | Monoclonal Mouse IgG _{2B} Clone # 920631 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | <i>E. coli</i> -derived recombinant human NLRP6/NALP6 Lys35-Arg193 Accession # P59044 |
| Formulation | 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.

| | Recommended Concentration | Sample |
|-----------------------|--|-----------|
| Flow Cytometry | 0.25 µg/10 ⁶ cells | See Below |
| CyTOF-ready | Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation. | |

DATA



PREPARATION AND STORAGE

| | |
|--------------------------------|--|
| Reconstitution | Reconstitute at 0.5 mg/mL in sterile PBS. |
| Shipping | 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 |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

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.