

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human DAP12 in Western blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 406288
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Human Dap12 synthetic peptide QGQRSDVYSDLNTQRPYYK Accession # O43914
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS and NaCl 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.

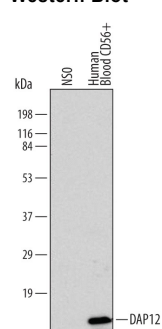
## APPLICATIONS

**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>Western Blot</b>	5 µg/mL	See Below
<b>Intracellular Staining by Flow Cytometry</b>	0.25 µg/10 <sup>6</sup> cells	See Below
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

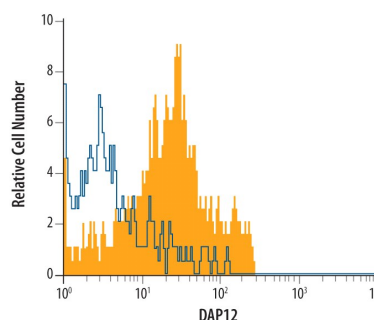
## DATA

### Western Blot



**Detection of Human DAP12 by Western Blot.** Western blot shows lysates of NS0 mouse myeloma cell line, mock transfected, and primary human CD56<sup>+</sup> NK cells. PVDF membrane was probed with 5 µg/mL of Human DAP12 Monoclonal Antibody (Catalog # MAB5240) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for DAP12 at approximately 10 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

### Intracellular Staining by Flow Cytometry



**Detection of DAP12 in Human CD56<sup>+</sup> Natural Killer Cells by Flow Cytometry.** Human peripheral blood CD56<sup>+</sup> natural killer cells were stained with Human DAP12 Monoclonal Antibody (Catalog # MAB5240, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Allophycocyanin-conjugated Anti-Mouse IgG F(ab')<sub>2</sub> Secondary Antibody (Catalog # F0101B). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with saponin.

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<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

DAP12, also known as TYROBP and KARAP, is a transmembrane protein that functions as a signal transduction adaptor molecule. DAP12 is expressed as a disulfide-linked homodimer that associates with a variety of receptors on NK and myeloid cells. Complex formation is mediated by intramembrane ionic interaction between an aspartic acid residue in DAP12 and a lysine residue in the partnered receptor. Ligand of these receptors can trigger either cell activation or inhibition through the ITAM sequence in DAP12, resulting in activation of Src family tyrosine kinases. Human and mouse DAP12 share 73% amino acid sequence identity.