

#### DESCRIPTION

|                           |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Human/Mouse/Rat  |
| <b>Specificity</b>        | Detects human, mouse, and rat Jak1.  |
| <b>Source</b>             | Monoclonal Rat IgG <sub>2B</sub> Clone # 413104  |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human Jak1<br>Pro32-Phe286<br>Accession # P23458   |
| <b>Conjugate</b>          | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm  |
| <b>Formulation</b>        | Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.<br><br>*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  |
|---|---------------------------------|---|
| <b>Intracellular Staining by Flow Cytometry</b> | 0.25-1 µg/10 <sup>6</sup> cells | Jurkat human acute T cell leukemia cell line fixed with paraformaldehyde and permeabilized with saponin |

#### PREPARATION AND STORAGE

|                                |  |
|--------------------------------|--|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.                                  |
| <b>Stability &amp; Storage</b> | <b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul> |

#### BACKGROUND

Janus Kinase 1 (Jak1) belongs to a family of protein tyrosine kinases that couple to cytokine receptors and are activated by ligand binding to these receptors. Activation of Jak1 occurs via phosphorylation at two adjacent tyrosine residues, Y1022 and Y1023, within the kinase domain. Jaks activate members of the STAT family of transcription factors by phosphorylating critical tyrosine regulatory sites. Jak1 is required for the activation of STAT1 and STAT2 in response to interferon α.

#### PRODUCT SPECIFIC NOTICES

This product is sold under license from Millipore Corporation under the following US or foreign patents: 5,821,069; 5,658,791; EP0560890. This product shall not be used to commercially screen drug molecules being developed as JAK1 or JAK2 inhibitors. Any  
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