

**DESCRIPTION**

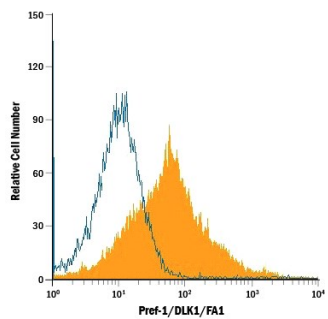
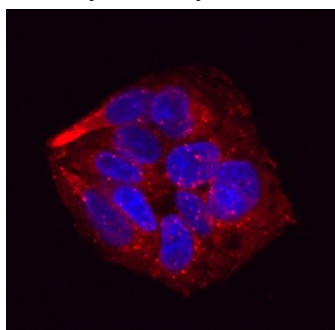
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Pref-1/DLK-1/FA1 in direct ELISAs and Western blots. Shows approximately 50% cross-reactivity with recombinant mouse Pref-1.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 211309
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human Pref-1 long isoform Ala24-Pro297 (with Arg248Pro and Lys295Ser substitutions) Accession # P80370
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied 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>	1 µg/mL	Recombinant Human Pref-1/DLK-1/FA1 under non-reducing conditions only
<b>Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	See Below
<b>Immunocytochemistry</b>	8-25 µg/mL	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**

<p><b>Flow Cytometry</b></p>  <p><b>Detection of Pref-1/DLK1/FA1 in HepG2 Human Cell Line by Flow Cytometry.</b> HepG2 human hepatocellular carcinoma cell line was stained with Mouse Anti-Human Pref-1/DLK1/FA1 Monoclonal Antibody (Catalog # MAB1144, filled histogram) or isotype control antibody (Catalog # MAB0041, open histogram), followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B).</p>	<p><b>Immunocytochemistry</b></p>  <p><b>Pref-1/DLK1/FA1 in HepG2 Human Cell Line.</b> Pref-1/DLK1/FA1 was detected in immersion fixed HepG2 human hepatocellular carcinoma cell line using Mouse Anti-Human Pref-1/DLK1/FA1 Monoclonal Antibody (Catalog # MAB1144) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cell membranes. View our protocol for <a href="#">Fluorescent ICC Staining of Cells on Coverslips</a>.</p>
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**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**

Pref-1 (Preadipocyte factor 1; also DLK-1 and FA1) is a 58-65 kDa member of the Notch/Serrata/Delta family of proteins. It is expressed in prechondrocytes and preadipocytes and appears to block progenitor cell differentiation into mature cell lineages. Mature human Pref-1 is a 360 amino acid (aa) type I transmembrane N- and O-linked glycoprotein. It contains a 280 aa extracellular region (aa 24-303), a 24 aa transmembrane segment (aa 304-327), and a 56 aa cytoplasmic domain (aa 328-383). The extracellular region contains six EGF-like domains, and undergoes proteolytic cleavage to generate a bioactive 50 kDa fragment, plus three 25-31 kDa fragments that show no activity. There are multiple potential splice variants. One shows a deletion of aa 229-301, a second possesses a six aa substitution for aa 1-52, a third shows a deletion of aa 210-277, while a fourth contains a six aa substitution for aa 207-383. Over aa 24-297, human Pref-1 shares 82% aa identity with mouse Pref-1.