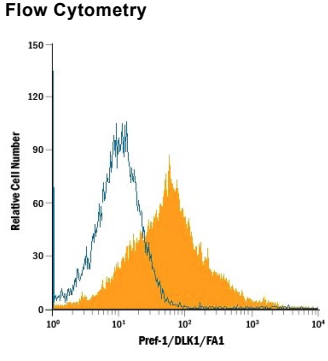
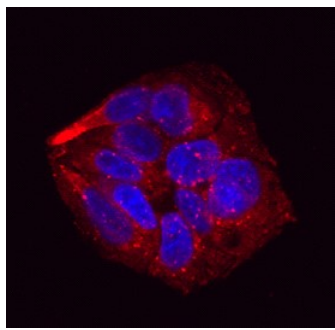


DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human Pref-1/DLK-1/FA1 in direct ELISAs and Western blots. Shows approximately 50% cross-reactivity with recombinant mouse Pref-1.
Source	Monoclonal Mouse IgG _{2B} Clone # 211309
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Pref-1 long isoform Ala24-Pro297 (with Arg248Pro and Lys295Ser substitutions) Accession # P80370
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. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website.	

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human Pref-1/DLK-1/FA1 under non-reducing conditions only
Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
Immunocytochemistry	8-25 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

Flow Cytometry	Immunocytochemistry
 <p>Detection of Pref-1/DLK1/FA1 in HepG2 Human Cell Line by Flow Cytometry. 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>Pref-1/DLK1/FA1 in HepG2 Human Cell Line. 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 Fluorescent ICC Staining of Cells on Coverslips.</p>

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

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.