

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Pref-1 in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 1168B
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Pref-1/DLK1/FA1 Ala24-Gln305 Accession # Q09163
Formulation	Supplied as a solution in PBS containing BSA, Glycerol and Sodium Azide. 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.

	Recommended Concentration	Sample
Western Blot	1:1000 dilution	See Below
Flow Cytometry	4 µL/10 ⁶ cells	See Below
Immunohistochemistry	1-25 µg/mL	See Below
Simple Western	1:100 dilution	See Below

DATA

Western Blot

Detection of Mouse Pref-1/DLK1/FA1 by Western Blot. Western blot shows lysates of 3T3-L1 mouse embryonic fibroblast adipose-like cell line and mouse embryo tissue. PVDF membrane was probed with 1:1000 dilution of Rabbit Anti-Mouse Pref-1/DLK1/FA1 Monoclonal Antibody (Catalog # MAB8634) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for Pref-1/DLK1/FA1 at approximately 45-50 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Flow Cytometry

Detection of Pref-1/DLK1/FA1 in 3T3-L1 Mouse Cell Line by Flow Cytometry. 3T3-L1 mouse embryonic fibroblast adipose-like cell line was stained with Rabbit Anti-Mouse Pref-1/DLK1/FA1 Monoclonal Antibody (Catalog # MAB8634, filled histogram) or isotype control antibody (Catalog # AB-108-C, open histogram), followed by Allophycocyanin-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # F0111).

Immunohistochemistry

Pref-1/DLK1/FA1 in Mouse Embryonic Liver Tissue. Pref-1/DLK1/FA1 was detected in immersion fixed frozen sections of mouse embryonic liver tissue (13 d.p.c.) using Rabbit Anti-Mouse Pref-1/DLK1/FA1 Monoclonal Antibody (Catalog # MAB8634) at 1 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Rabbit IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC003). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to plasma membrane. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

Simple Western

Detection of Mouse Pref-1/DLK1/FA1 by Simple Western™. Simple Western lane view shows lysates of mouse embryo tissue, loaded at 0.2 mg/mL. A specific band was detected for Pref-1/DLK1/FA1 at approximately 63 kDa (as indicated) using 1:100 dilution of Rabbit Anti-Mouse Pref-1/DLK1/FA1 Monoclonal Antibody (Catalog # MAB8634). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. 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 opening. • 6 months, -20 to -70 °C under sterile conditions after opening.

BACKGROUND

Pref-1 (Preadipocyte factor 1), also known as Protein delta homolog 1, DLK1, FA1 and Fetal antigen 1, is a 45-60 kDa transmembrane glycoprotein that is highly expressed in fetal liver, placenta, adult adrenal gland, brain, testis and ovary. Expression of Pref-1 is elevated in liver after birth but starts to decline around postnatal day 16. Mature mouse Pref-1 is a 362 amino acid (aa) type I transmembrane N- and O-linked glycoprotein. It contains a 282 aa extracellular region (aa 24-305), a 24 aa transmembrane segment (aa 306-329), and a 56 aa cytoplasmic domain (aa 330-385). It contains 6 EGF-like domains and is involved in embryonic skeletal system development. Pref-1 inhibits preadipocyte proliferation by regulating their entry into G1/S-phase and represses preadipocyte differentiation. It is a master regulator of preadipocyte homeostasis and adipose tissue expansion. Pref-1 manipulation may, therefore, be utilized in obesity treatments. Mouse Pref-1 shares 85% and 94% aa identity with human and rat Pref-1, respectively

PRODUCT SPECIFIC NOTICES

* Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to SDS for additional information and handling instructions.