

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Pref-1 in direct ELISAs.
Source	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
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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
Flow Cytometry	0.25-1 µg/10 ⁶ cells	3T3-L1 mouse embryonic fibroblast adipose-like cell line

PREPARATION AND STORAGE

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

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

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