

DESCRIPTION

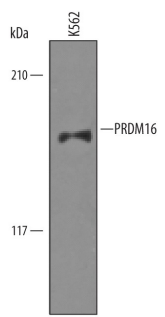
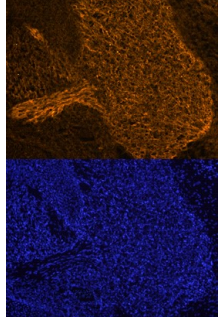
Species Reactivity	Human/Mouse
Specificity	Detects mouse and human PRDM16 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant mouse PRDM16 Lys537-Glu688 Accession # A2A935.1
Formulation	Lyophilized from a 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. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human PRDM16 by Western Blot. Western blot shows lysates of K562 human chronic myelogenous leukemia cell line. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Human/Mouse PRDM16 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6295) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for PRDM16 at approximately 170 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.</p>	<p>Immunohistochemistry</p>  <p>PRDM16 in Mouse Embryo. PRDM16 was detected in immersion fixed frozen sections of mouse embryo (E13.5) using Sheep Anti-Human/Mouse PRDM16 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6295) at 10 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (orange, upper panel; Catalog # NL010) and counterstained with DAPI (blue, lower panel). Specific staining was localized to the trigeminal ganglion. View our protocol for Fluorescent IHC Staining of Frozen Tissue Sections.</p>
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PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
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

PRDM16 (PR [PRDI-BF1 and RIZ] domain containing protein 16; also MEL-1) is a 170 kDa member of the PR Domain family of proteins. It is a transcriptional regulator expressed in the embryo, and is reported to participate in the maintenance of both neuronal and hematopoietic progenitor stem cells populations, and to preferentially promote the development of brown fat from adipomyocyte precursors. The generation of brown fat is likely due to suppression of muscle-specific factors. Mouse PRDM16 is 1275 amino acids (aa) in length. It contains one SET domain (aa 85-208) followed by ten C2H2 type Zn finger motifs (aa 230-1030). There are multiple potential isoform variants that likely vary from 150-170 kDa in size. One isoform shows a deletion of aa 1232-1250, a second isoform shows a three aa substitution for aa 1174-1275, and a third isoform possesses an alternative start site at Met21, coupled to a deletion of aa 1196-1133. Over aa 537-688, mouse PRDM16 shares 81% and 95% aa identity with human and rat PRDM16, respectively.