

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat PEDF R/PNPLA2 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant mouse PEDF R/PNPLA2 Val162-Gly253 Accession # Q8BJ56
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 as a 0.2 µm filtered solution in PBS.

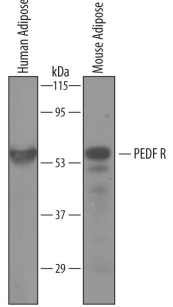
APPLICATIONS

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
Simple Western	10 µg/mL	See Below

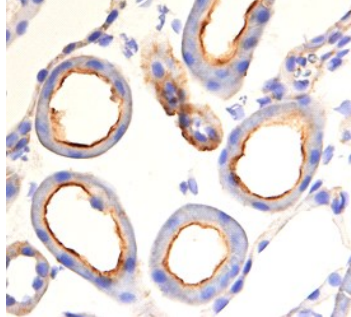
DATA

Western Blot



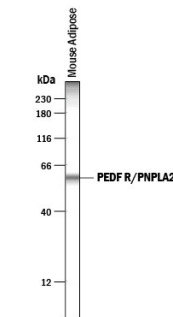
Detection of Human and Mouse PEDF R/PNPLA2 by Western Blot. Western blot shows lysates of human adipose tissue and mouse adipose tissue. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human/Mouse/Rat PEDF R/PNPLA2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5365) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for PEDF R/PNPLA2 at approximately 55 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 8](#).

Immunohistochemistry




PEDF R/PNPLA2 in Mouse Kidney. PEDF R/PNPLA2 was detected in perfusion fixed frozen sections of mouse kidney using 15 µg/mL Sheep Anti-Human/Mouse/Rat PEDF R/PNPLA2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5365) overnight at 4 °C. Tissue was stained with the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific labeling was localized to the plasma membrane of epithelial cells in tubules. View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

Simple Western



Detection of Mouse PEDF R/PNPLA2 by Simple Western™. Simple Western lane view shows lysates of mouse adipose tissue, loaded at 0.2 mg/mL. A specific band was detected for PEDF R/PNPLA2 at approximately 59 kDa (as indicated) using 10 µg/mL of Sheep Anti-Human/Mouse/Rat PEDF R/PNPLA2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5365) followed by 1:50 dilution of HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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

PEDF R (Pigment epithelium derived factor receptor; also known as ATGL, PNPLA2, and Desnutrin) is a 55 kDa member of the PNPLA family of proteins. It is expressed in adipocytes, hepatocytes, skeletal muscle, and pigment epithelium. PEDF R specifically hydrolyses triglycerides, releasing long-chain fatty acids. Mouse PEDF R is described as being a 486 amino acid (aa) type II transmembrane (TM) protein. Its TM segment is stated to span aa 9-29. Alternatively, it may have a hydrophobic lipid-association domain between aa 267-295. It contains a palatin domain (aa 10-179) with a conserved GxSxG enzymatic motif. There are multiple splice forms. Two show alternate start sites at Met57 and Met232, while two others show a deletion of aa 163-196 and aa 253-308, respectively. Over aa 162-253, mouse PEDF R shares 98% and 93% aa sequence identity with rat and human PEDF R, respectively.