Human Adiponutrin/PNPLA3 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF5208

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Adiponutrin/PNPLA3 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Adiponutrin/PNPLA3 Arg160-Arg349 Accession # Q9NST1
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.

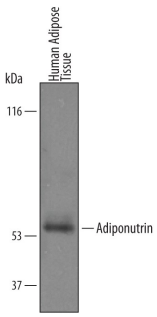
APPLICATIONS

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
Immunocytochemistry	5-15 µg/mL	See Below

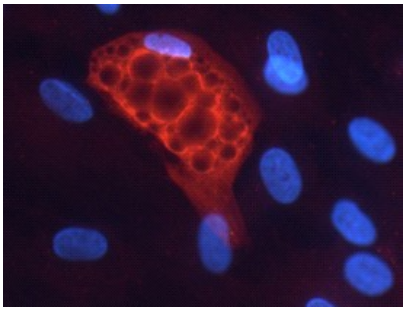
DATA

Western Blot



Detection of Human Adiponutrin/ADPN by Western Blot. Western blot shows lysates of human adipose tissue. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human Adiponutrin/ADPN Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5208) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Adiponutrin/ADPN at approximately 53 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Immunocytochemistry



Adiponutrin/ADPN in Human Adipocytes. Adiponutrin/ADPN was detected in immersion fixed human adipocytes using 10 µg/mL Sheep Anti-Human Adiponutrin/ADPN Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5208) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counter-stained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

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	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 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

Human Adiponutrin (ADPN; also PNPLA3 and patatin-like phospholipase domain-containing protein 3) is a 53 kDa member of the PNPLA family of phospholipase A2 enzymes. It is expressed in white adipocytes. Adiponutrin is elevated in response to insulin and appears to act not as a phospholipase, but a molecule involved in anabolic pathways. ADPN is likely to be a type II transmembrane protein that is 481 amino acids (aa) in length. It contains one patatin domain (aa 10-179) that is associated with *in vitro* enzyme activity and a transmembrane segment between aa 42-62. There appear to be two splice variants. One shows a four aa deletion of aa 59-62 and a second shows an alternate start site at Met379. Over aa 160-349, human ADPN shares 61% aa identity with mouse Adiponutrin.

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