## RD SYSTEMS a biotechne brand

Antigen Affinity-purified Polyclonal Sheep IgG Catalog Number: AF6190

DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human PLA2G16 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human PLA2G16 Asp12-Asp132 Accession # P53816
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 Sample Concentration Western Blot 1 µg/mL See Below DATA Western Blot Detection of Human PLA2G16 by Western Blot. Western blot shows lysates of human heart tissue. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Human PLA2G16 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6190) followed by HRP-conjugated kDa Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific 37 band was detected for PLA2G16 at approximately 17 kDa (as indicated). This experiment was conducted under reducing conditions and using 29-Immunoblot Buffer Group 8. 19 --PLA2G16 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 ٠

## BACKGROUND

PLA2G16 (Group 16 phospholipase A2; also HREV107 and AdPLA) is a Ca<sup>++</sup>-dependent 17-18 kDa member of the H-rev107 family of molecules. It is expressed intracellularly by white adipocytes, induced by insulin, and generates arachadonic acid from phospholipids. The arachadonic acid is converted to PGE2, which binds the EP3 receptor and decreases cAMP levels. This results in decreased hormone-sensitive lipase activity and increased adiposity. Human PLA216 is 162 amino acids (aa) in length. It is associated with both membranes and cytosol, and may possess a transmembrane segment between aa 134-154. The enzymatic activity resides in His23 and Cys113. There is one potential isoform that shows a 20 aa substitution for the first four amino acids. Over aa 12 - 132, human PLA2G16 shares 88% aa identity with mouse PLA2G16.

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