

# GPAA1 (D-15): sc-49018

## BACKGROUND

Glycosylphosphatidylinositol (GPI) acts as a membrane anchor for cell surface proteins. Glycosylphosphatidylinositol anchor attachment 1 protein (GPAA1), also designated GPI anchor attachment protein 1 or GAA1 protein homolog, is a membrane protein localized to the endoplasmic reticulum which is involved in GPI-anchor biosynthesis. GPAA1 is crucial for GPI-anchoring of precursor proteins and catalyzes the attachment of GPI to proteins containing a C-terminal GPR attachment signal. GAA1 contains an N-terminal signal sequence, one cAMP- and cGMP-dependent protein kinase phosphorylation site, two potential N-glycosylation sites, one leucine zipper pattern and eight putative transmembrane domains. GPAA1 is ubiquitously expressed and shows higher levels of expression in fetal tissues than in adult tissues.

## REFERENCES

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- Azzouz, N., et al. 2005. Removal of phospholipid contaminants through precipitation of glycosylphosphatidylinositols. *Anal. Biochem.* 343: 152-158.
- Hilvo, M., et al. 2005. Characterization of CA XV, a new GPI-anchored form of carbonic anhydrase. *Biochem. J.* 392: 83-92.
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## CHROMOSOMAL LOCATION

Genetic locus: GPAA1 (human) mapping to 8q24.3; Gpaa1 (mouse) mapping to 15 D3.

## SOURCE

GPAA1 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of GPAA1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49018 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GPAA1 (D-15) is recommended for detection of GPAA1 isoform 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GPAA1 (D-15) is also recommended for detection of GPAA1 isoform 1 in additional species, including equine and porcine.

Suitable for use as control antibody for GPAA1 siRNA (h): sc-60715, GPAA1 siRNA (m): sc-60716, GPAA1 shRNA Plasmid (h): sc-60715-SH, GPAA1 shRNA Plasmid (m): sc-60716-SH, GPAA1 shRNA (h) Lentiviral Particles: sc-60715-V and GPAA1 shRNA (m) Lentiviral Particles: sc-60716-V.

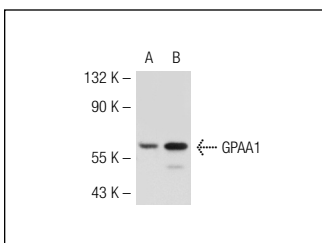
Molecular Weight of GPAA1: 70 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



GPAA1 (D-15): sc-49018. Western blot analysis of GPAA1 expression in 293T (A) and HeLa (B) whole cell lysates.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.