

# AGPHD1 (C-16): sc-241789

## BACKGROUND

AGPHD1 (aminoglycoside phosphotransferase domain containing 1) is a 373 amino acid protein belonging to the aminoglycoside phosphotransferase family. Existing as three alternatively spliced isoforms, AGPHD1 localizes to cytoplasm and participates in kinase and transferase activities. AGPHD1 may be associated with chronic obstructive pulmonary disease (COPD) and lung cancer risk in former and current smokers. AGPHD1 is encoded by a gene that maps to human chromosome 15. Encoding more than 700 genes, chromosome 15 is made up of approximately 106 million base pairs and is about 3% of the human genome. A lung cancer susceptibility locus maps to nicotinic acetylcholine receptor subunit genes at chromosome 15q25.

## REFERENCES

- Liu, P., et al. 2008. Familial aggregation of common sequence variants on 15q24-25.1 in lung cancer. *J. Natl. Cancer Inst.* 100: 1326-1330.
- Amos, C.I., et al. 2008. Genome-wide association scan of tag SNPs identifies a susceptibility locus for lung cancer at 15q25.1. *Nat. Genet.* 40: 616-622.
- Hung, R.J., et al. 2008. A susceptibility locus for lung cancer maps to nicotinic acetylcholine receptor subunit genes on 15q25. *Nature* 452: 633-637.
- Galvan, A., et al. 2010. Nicotine dependence may link the 15q25 locus to lung cancer risk. *Carcinogenesis* 31: 331-333.
- Hansen, H.M., et al. 2010. Fine mapping of chromosome 15q25.1 lung cancer susceptibility in African-Americans. *Hum. Mol. Genet.* 19: 3652-3661.
- Truong, T., et al. 2010. Replication of lung cancer susceptibility loci at chromosomes 15q25, 5p15, and 6p21: a pooled analysis from the International Lung Cancer Consortium. *J. Natl. Cancer Inst.* 102: 959-971.
- Amos, C.I., et al. 2010. Nicotinic acetylcholine receptor region on chromosome 15q25 and lung cancer risk among African Americans: a case-control study. *J. Natl. Cancer Inst.* 102: 1199-1205.
- SWISS-PROT/TrEMBL (A2RU49). World Wide Web URL: <http://www.uniprot.org/uniprot/A2RU49>

## CHROMOSOMAL LOCATION

Genetic locus: AGPHD1 (human) mapping to 15q25.1; Agphd1 (mouse) mapping to 9 B.

## SOURCE

AGPHD1 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of AGPHD1 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-241789 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

AGPHD1 (C-16) is recommended for detection of AGPHD1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

AGPHD1 (C-16) is also recommended for detection of AGPHD1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for AGPHD1 siRNA (h): sc-90178, AGPHD1 siRNA (m): sc-141920, AGPHD1 shRNA Plasmid (h): sc-90178-SH, AGPHD1 shRNA Plasmid (m): sc-141920-SH, AGPHD1 shRNA (h) Lentiviral Particles: sc-90178-V and AGPHD1 shRNA (m) Lentiviral Particles: sc-141920-V.

Molecular Weight of AGPHD1: 42 kDa.

## 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) 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.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.