

# AUP1 (S-12): sc-160970

## BACKGROUND

AUP1 (ancient ubiquitous protein 1) is a 476 amino acid protein that is encoded by a gene sharing homology with a conserved region of the ancient archain 1 gene (which encodes a protein known as COPD). Expressed throughout the body, AUP1 binds a membrane-proximal sequence found in the cytoplasmic tail of Integrin  $\alpha$ IIb subunits and, through this binding, may mediate Integrin-controlled platelet aggregation and thrombus formation. In addition, AUP1 contains one CUE (coupling of ubiquitin conjugation to ER degradation) domain; a motif that is characteristically involved in trafficking and ubiquitination pathways, suggesting a possible role for AUP1 in binding of ubiquitin-conjugating enzymes. Two isoforms of AUP1 are expressed due to alternative splicing events.

## REFERENCES

1. Radice, P., et al. 1995. The human archain gene, ARCN1, has highly conserved homologs in rice and *Drosophila*. *Genomics* 26: 101-106.
2. Tunnaclyffe, A., et al. 1996. The coatomer protein  $\delta$ -COP, encoded by the archain gene, is conserved across diverse eukaryotes. *Mamm. Genome* 7: 784-786.
3. Jang, W., et al. 1996. Aup1, a novel gene on mouse chromosome 6 and human chromosome 2p13. *Genomics* 36: 366-368.
4. Kato, A., et al. 2002. Ancient ubiquitous protein 1 binds to the conserved membrane-proximal sequence of the cytoplasmic tail of the integrin  $\alpha$  subunits that plays a crucial role in the inside-out signaling of  $\alpha$ IIb $\beta$ 3. *J. Biol. Chem.* 277: 28934-28941.
5. Karpisheva, K.V., et al. 2002. A new human cellular protein AUP1. II. cDNA cloning, genomic organization of Aup1 gene and preliminary characterization of human AUP1 protein. *Tsitologiya* 44: 839-845.
6. Karpisheva, K.V., et al. 2002. A new human cellular protein AUP1. III. The intracellular localization of AUP1 protein in different human and rat cell lines. *Tsitologiya* 44: 846-851.

## CHROMOSOMAL LOCATION

Genetic locus: AUP1 (human) mapping to 2p13.1; Aup1 (mouse) mapping to 6 C3.

## SOURCE

AUP1 (S-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of AUP1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160970 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

AUP1 (S-12) is recommended for detection of AUP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

AUP1 (S-12) is also recommended for detection of AUP1 in additional species, including bovine.

Suitable for use as control antibody for AUP1 siRNA (h): sc-94537, AUP1 siRNA (m): sc-141397, AUP1 shRNA Plasmid (h): sc-94537-SH, AUP1 shRNA Plasmid (m): sc-141397-SH, AUP1 shRNA (h) Lentiviral Particles: sc-94537-V and AUP1 shRNA (m) Lentiviral Particles: sc-141397-V.

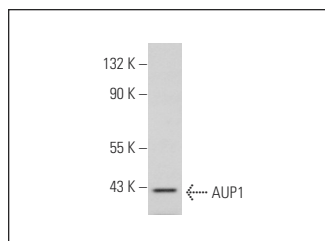
Molecular Weight of AUP1: 53 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

## 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



AUP1 (S-12): sc-160970. Western blot analysis of AUP1 expression in A-431 whole cell lysate.

## 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.