

# Alix (N-20): sc-49267

## BACKGROUND

ALG-2-interacting protein (Alix), also designated programmed cell death 6-interacting protein (PDCD6-interacting protein and Hp95), is a cytoplasmic protein that interacts with apoptosis-associated proteins (ALG-2 and PDCD6) and with the endocytosis-regulator CIN85. Additionally, Alix interacts with the endosomal sorting complexes required for transport (ESCRT) proteins (Tsg101 and CHMP4) and can associate with HIV-1. The endophilins (SH3P4, SH3P8 and SH3P13), enzymes that change curvature of the membrane that are required for early and late steps of coated vesicle formation, also bind to Alix. Alix is involved in the concentration and sorting of cargo proteins of the multivesicular body for incorporation into vesicles.

## REFERENCES

- Segura-Morales, C., et al. 2005. Tsg101 and Alix interact with murine leukemia virus Gag and cooperate with Nedd4 ubiquitin ligases during budding. *J. Biol. Chem.* 280: 27004-27012.
- Chen, C., et al. 2005. Functions of early (AP-2) and late (AIP1/Alix) endocytic proteins in equine infectious anemia virus budding. *J. Biol. Chem.* 280: 40474-40480.
- Katoh, K., et al. 2005. The penta-EF-hand protein ALG-2 interacts directly with the ESCRT-I component TSG101, and Ca<sup>2+</sup>-dependently co-localizes to aberrant endosomes with dominant-negative AAA ATPase SKD1/Vps4B. *Biochem. J.* 391: 677-685.
- Sakaguchi, T., et al. 2005. AIP1/Alix is a binding partner of Sendai virus C protein and facilitates virus budding. *J. Virol.* 79: 8933-8941.
- Le Blanc, I., et al. 2005. Endosome-to-cytosol transport of viral nucleocapsids. *Nat. Cell Biol.* 7: 653-664.
- Kim, J., et al. 2005. Structural basis for endosomal targeting by the Bro1 domain. *Dev. Cell* 8: 937-947.
- Cabezas, A., et al. 2005. Alix regulates cortical actin and the spatial distribution of endosomes. *J. Cell Sci.* 118: 2625-2635.
- Ichioka, F., et al. 2005. Identification of Rab GTPase-activating protein-like protein (RabGAPLP) as a novel Alix/AIP1-interacting protein. *Biosci. Biotechnol. Biochem.* 69: 861-865.

## CHROMOSOMAL LOCATION

Genetic locus: PDCD6IP (human) mapping to 3p22.3; Pcd6ip (mouse) mapping to 9 F3.

## SOURCE

Alix (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Alix 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-49267 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Alix (N-20) is recommended for detection of Alix 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).

Alix (N-20) is also recommended for detection of Alix in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for Alix siRNA (h): sc-60149, Alix siRNA (m): sc-60150, Alix shRNA Plasmid (h): sc-60149-SH, Alix shRNA Plasmid (m): sc-60150-SH, Alix shRNA (h) Lentiviral Particles: sc-60149-V and Alix shRNA (m) Lentiviral Particles: sc-60150-V.

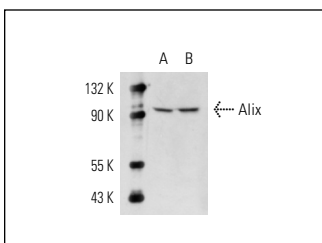
Molecular Weight of Alix: 95 kDa.

Positive Controls: K-562 nuclear extract: sc-2130, U-937 nuclear extract: sc-2156 or HeLa nuclear extract: sc-2120.

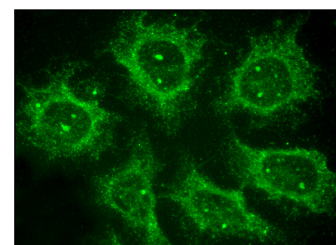
## RECOMMENDED SECONDARY REAGENTS

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



Alix (N-20): sc-49267. Western blot analysis of Alix expression in K-562 (A) and U-937 (B) nuclear extracts.



Alix (N-20): sc-49267. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## 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.