SANTA CRUZ BIOTECHNOLOGY, INC.

Alix (2H12): sc-53539



BACKGROUND

ALG-2-interacting protein (Alix), also designated programmed cell death 6interacting protein (PDCD6-interacting protein), is a cytoplasmic protein. Alix 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

- 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.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: PDCD6IP (human) mapping to 3p22.3; Pdcd6ip (mouse) mapping to 9 F3.

SOURCE

Alix (2H12) is a mouse monoclonal antibody raised agianst full length Alix of human origin.

PRODUCT

Each vial contains 200 $\mu g\, lgG_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Alix (2H12) is recommended for detection of Alix of mouse, rat, human and *Xenopus laevis* 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).

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: Alix (m2): 293T Lysate: sc-118358, K-562 nuclear extract: sc-2130 or HeLa nuclear extract: sc-2120.

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.

DATA





Alix (2H12): sc-53539. Western blot analysis of Alix expression in HeLa (A), Jurkat (B), K-562 (C), THP-1 (D) and U-937 (E) nuclear extracts.

expression in non-transfected: sc-117752 (**A**) and mouse Alix transfected: sc-118358 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Graner, M.W., et al. 2009. Proteomic and immunologic analyses of brain tumor exosomes. FASEB J. 23: 1541-1557.
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- Bongiovanni, A., et al. 2012. Alix protein is substrate of Ozz-E3 ligase and modulates Actin remodeling in skeletal muscle. J. Biol. Chem. 287: 12159-12171.
- 4. Romancino, D.P., et al. 2013. Identification and characterization of PIAlix, the Alix homologue from the Mediterranean sea urchin *Paracentrotus lividus*. Dev. Growth Differ. 55: 237-246.
- 5. Guo, H., et al. 2014. Autophagy supports genomic stability by degrading retrotransposon RNA. Nat. Commun. 5: 5276.
- Salvi, V., et al. 2018. Exosome-delivered microRNAs promote IFN-α secretion by human plasmacytoid DCs via TLR7. JCI Insight 3: e98204.
- Romancino, D.P., et al. 2018. Palmitoylation is a post-translational modification of Alix regulating the membrane organization of exosome-like small extracellular vesicles. Biochim. Biophys. Acta Gen. Subj. 1862: 2879-2887.
- Deng, F., et al. 2019. A review on protein markers of exosome from different bio-resources and the antibodies used for characterization. J. Histotechnol. 42: 226-239.
- Grossi, I., et al. 2021. MicroRNA-34a-5p expression in the plasma and in its extracellular vesicle fractions in subjects with Parkinson's disease: an exploratory study. Int. J. Mol. Med. 47: 533-546.
- 10. Li, D., et al. 2022. An RNAi screen of RNA helicases identifies elF4A3 as a regulator of embryonic stem cell identity. Nucleic Acids Res. E-published.



See Alix (1A12): sc-53540 for Alix antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.