SANTA CRUZ BIOTECHNOLOGY, INC.

Alix (1A12): sc-53540

BACKGROUND

ALG-2-interacting protein (Alix), also designated programmed cell death 6-interacting 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 (tsg 101 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 incorpoation into vesicles.

CHROMOSOMAL LOCATION

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

SOURCE

Alix (1A12) is a mouse monoclonal antibody raised agianst full length Alix of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Alix (1A12) is available conjugated to agarose (sc-53540 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53540 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53540 PE), fluorescein (sc-53540 FITC), Alexa Fluor® 488 (sc-53540 AF488), Alexa Fluor® 546 (sc-53540 AF546), Alexa Fluor® 594 (sc-53540 AF594) or Alexa Fluor® 647 (sc-53540 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53540 AF680) or Alexa Fluor® 790 (sc-53540 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Alix (1A12) 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), immunohistochemistry (including paraffin-embedded sections) (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.

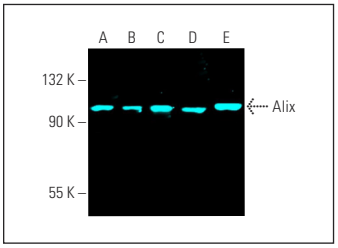
Molecular Weight of Alix: 95 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, U-937 nuclear extract: sc-2156 or Jurkat nuclear extract: sc-2132.

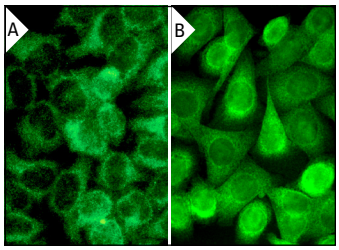
STORAGE

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

DATA



Alix (1A12) Alexa Fluor® 647: sc-53540 AF647. Direct fluorescent western blot analysis of Alix expression in HeLa (**A**), Jurkat (**B**), U-937 (**C**) and THP-1 (**D**) nuclear extracts and K-562 whole cell lysate (**E**). Blocked with UltraCruz® Blocking Reagent: sc-516214.



Alix (1A12) Alexa Fluor® 488: sc-53540 AF488. Direct immunofluorescence staining of formalin-fixed SW480 cells showing cytoplasmic and membrane localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (**A**). Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**B**).

SELECT PRODUCT CITATIONS

1. Molle, D., et al. 2009. Endosomal trafficking of HIV-1 gag and genomic RNAs regulates viral egress. J. Biol. Chem. 284: 19727-19743.
2. Bardens, A., et al. 2011. Alix regulates egress of hepatitis B virus naked capsid particles in an ESCRT-independent manner. Cell. Microbiol. 13: 602-619.
3. 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. Yan, H., et al. 2014. Staphylococcal enterotoxin B suppresses Alix and compromises intestinal epithelial barrier functions. J. Biomed. Sci. 21: 29.
5. Campanella, C., et al. 2015. Heat shock protein 60 levels in tissue and circulating exosomes in human large bowel cancer before and after ablative surgery. Cancer 121: 3230-3239.
6. Kharmate, G., et al. 2016. Epidermal growth factor receptor in prostate cancer derived exosomes. PLoS ONE 11: e0154967.
7. Lorey, M.B., et al. 2017. Global characterization of protein secretion from human macrophages following non-canonical caspase-4/5 inflammasome activation. Mol. Cell. Proteomics 16: S187-S199.
8. Song, E.S., et al. 2018. Insulin-degrading enzyme is not secreted from cultured cells. Sci. Rep. 8: 2335.
9. Xu, H., et al. 2019. Exosomes derived from PM2.5-treated lung cancer cells promote the growth of lung cancer via the Wnt3a/β-catenin pathway. Oncol. Rep. 41: 1180-1188.

RESEARCH USE

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