SANTA CRUZ BIOTECHNOLOGY, INC.

cylindromatosis 1 (E-4): sc-74434

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Familial cylindromatosis is an autosomal dominant genetic predisposition to multiple benign neoplasms of the skin known as cylindromas. These cylindromas may become infected, resulting in disfigurement and discomfort. In severe cases, ulcerated cylindromas are only treatable by reconstructive surgery with skin grafts. The human CYLD gene on chromosome 16q12.1 encodes the protein cylindromatosis 1. Mutations in the CYLD gene are responsible for familial cylindromatosis. The cylindromatosis 1 protein contains three cytoskeletal-associated protein-glycineconserved (CAP-GLY) domains and may function to coordinate the attachment of organelles to microtubules. Cylindromatosis 1 is expressed in brain, gonads, skeletal muscle, spleen, liver, heart, lung and leukocytes. Somatic mutations of the CYLD gene appear to play a role in the oncogenesis of tumors with cylindromatous features.

CHROMOSOMAL LOCATION

Genetic locus: CYLD (human) mapping to 16q12.1; Cyld (mouse) mapping to 8 C3.

SOURCE

cylindromatosis 1 (E-4) is a mouse monoclonal antibody raised against the C-terminal 419 amino acids of cylindromatosis 1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

cylindromatosis 1 (E-4) is available conjugated to agarose (sc-74434 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74434 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74434 PE), fluorescein (sc-74434 FITC), Alexa Fluor® 488 (sc-74434 AF488), Alexa Fluor® 546 (sc-74434 AF546), Alexa Fluor® 594 (sc-74434 AF594) or Alexa Fluor® 647 (sc-74434 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-74434 AF680) or Alexa Fluor® 790 (sc-74434 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

cylindromatosis 1 (E-4) is recommended for detection of cylindromatosis 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 cylindromatosis 1 siRNA (h): sc-37326, cylindromatosis 1 siRNA (m): sc-37327, cylindromatosis 1 shRNA Plasmid (h): sc-37326-SH, cylindromatosis 1 shRNA Plasmid (m): sc-37327-SH, cylindromatosis 1 shRNA (h) Lentiviral Particles: sc-37326-V and cylindromatosis 1 shRNA (m) Lentiviral Particles: sc-37327-V.

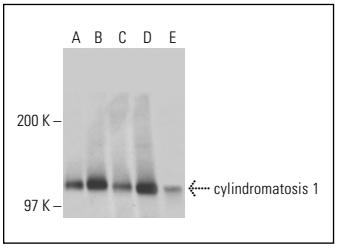
Molecular Weight of cylindromatosis 1: 120 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, A-431 whole cell lysate: sc-2201 or KNRK whole cell lysate: sc-2214.

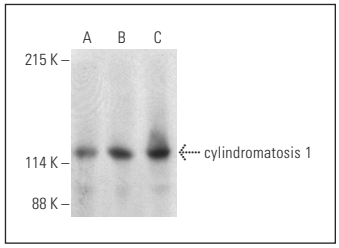
STORAGE

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

DATA



cylindromatosis 1 (E-4): sc-74434. Western blot analysis of cylindromatosis 1 expression in Jurkat (**A**), A-431 (**B**), MIA PaCa-2 (**C**), NIH/3T3 (**D**) and KNRK (**E**) whole cell lysates.



cylindromatosis 1 (E-4): sc-74434. Western blot analysis of cylindromatosis 1 expression in MIA PaCa-2 (**A**), NIH/3T3 (**B**) and KNRK (**C**) whole cell lysates. Detection reagent used: m-IgG_{2b} BP-HRP: sc-542741.

SELECT PRODUCT CITATIONS

1. Tsagaratou, A., et al. 2010. Thymocyte-specific truncation of the deubiquitinating domain of CYLD impairs positive selection in a NFκB essential modulator-dependent manner. J. Immunol. 185: 2032-2043.
2. Tsagaratou, A., et al. 2011. Differential requirement of IKK2 for CYLD-dependent representation of thymic and peripheral T-cell populations. Eur. J. Immunol. 41: 3054-3062.
3. Dosemeci, A., et al. 2013. CYLD, a deubiquitinase specific for lysine63-linked polyubiquitins, accumulates at the postsynaptic density in an activity-dependent manner. Biochem. Biophys. Res. Commun. 430: 245-249.
4. Thein, S., et al. 2014. CaMKII mediates recruitment and activation of the deubiquitinase CYLD at the postsynaptic density. PLoS ONE 9: e91312.
5. Karatzas, D.N., et al. 2016. Inactivation of CYLD in intestinal epithelial cells exacerbates colitis-associated colorectal carcinogenesis—a short report. Cell. Oncol. 39: 287-293.
6. Pseftogas, A., et al. 2017. Activation of peroxisome proliferator-activated receptor γ in mammary epithelial cells upregulates the expression of tumor suppressor CYLD to mediate growth inhibition and anti-inflammatory effects. Int. J. Biochem. Cell Biol. 82: 49-56.
7. Orfanidou, T., et al. 2017. Down-regulation of the tumor suppressor CYLD enhances the transformed phenotype of human breast cancer cells. Anticancer Res. 37: 3493-3503.
8. Jin, C., et al. 2019. Shank3 regulates striatal synaptic abundance of Cyld, a deubiquitinase specific for Lys63-linked polyubiquitin chains. J. Neurochem. 150: 776-786.
9. Elbner, C., et al. 2019. Nuclear translocation of RELB is increased in diseased human liver and promotes ductular reaction and biliary fibrosis in mice. Gastroenterology 156: 1190-1205.e14.

RESEARCH USE

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