

CCZ1 (B-7): sc-514290



The Power to Question

BACKGROUND

CCZ1, also known as CCZ1 vacuolar protein trafficking and biogenesis associated homolog (*S. cerevisiae*), CCZ1A, CCZ1B or CGI-43, is a 482 amino acid protein that localizes to the lysosomal membrane and belongs to the CCZ1 family. CCZ1 is encoded by a gene that maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome.

CHROMOSOMAL LOCATION

Genetic locus: CCZ1/CCZ1B (human) mapping to 7p22.1; Ccz1 (mouse) mapping to 5 G2.

SOURCE

CCZ1 (B-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 244-269 within an internal region of CCZ1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CCZ1 (B-7) is available conjugated to agarose (sc-514290 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514290 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514290 PE), fluorescein (sc-514290 FITC), Alexa Fluor® 488 (sc-514290 AF488), Alexa Fluor® 546 (sc-514290 AF546), Alexa Fluor® 594 (sc-514290 AF594) or Alexa Fluor® 647 (sc-514290 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514290 AF680) or Alexa Fluor® 790 (sc-514290 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514290 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

CCZ1 (B-7) is recommended for detection of CCZ1 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 CCZ1 siRNA (h): sc-89522, CCZ1 siRNA (m): sc-141390, CCZ1 shRNA Plasmid (h): sc-89522-SH, CCZ1 shRNA Plasmid (m): sc-141390-SH, CCZ1 shRNA (h) Lentiviral Particles: sc-89522-V and CCZ1 shRNA (m) Lentiviral Particles: sc-141390-V.

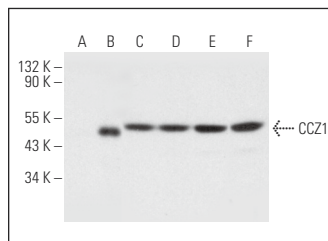
Molecular Weight of CCZ1: 56 kDa.

Positive Controls: CCZ1 (m): 293T Lysate: sc-118637, HeLa whole cell lysate: sc-2200 or MCF7 whole cell lysate: sc-2206.

STORAGE

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

DATA



CCZ1 (B-7): sc-514290. Western blot analysis of CCZ1 expression in non-transfected 293T: sc-117752 (A), mouse CCZ1 transfected 293T: sc-118637 (B), HeLa (C), MCF7 (D), Jurkat (E) and HEK293 (F) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Yamano, K., et al. 2018. Endosomal Rab cycles regulate Parkin-mediated mitophagy. *Elife* 7: e31326.
2. Hirst, J., et al. 2021. Rag GTPases and phosphatidylinositol 3-phosphate mediate recruitment of the AP-5/SPG11/SPG15 complex. *J. Cell Biol.* 220: e202002075.
3. Kim, S., et al. 2021. Dysregulation of mitochondria-lysosome contacts by GBA1 dysfunction in dopaminergic neuronal models of Parkinson's disease. *Nat. Commun.* 12: 1807.
4. Sawaguchi, S., et al. 2021. Hypomyelinating leukodystrophy 15 (HLD15)-associated mutation of EPRS1 leads to its polymeric aggregation in Rab7-positive vesicle structures, inhibiting oligodendroglial cell morphological differentiation. *Polymers* 13: 1074.
5. Jin, X., et al. 2022. Rab7 activity is required for the regulation of mitophagy in oocyte meiosis and oocyte quality control during ovarian aging. *Autophagy* 18: 643-660.
6. Grodzki, M., et al. 2022. Genome-scale CRISPR screens identify host factors that promote human coronavirus infection. *Genome Med.* 14: 10.
7. Cai, C.Z., et al. 2022. Enhancing autophagy maturation with CCZ1-MON1A complex alleviates neuropathology and memory defects in Alzheimer disease models. *Theranostics* 12: 1738-1755.
8. Coppola, V., et al. 2023. The autophagic protein FYCO1 controls TNFRSF10/TRAIL receptor induced apoptosis and is inactivated by CASP8 (caspase 8). *Autophagy* 19: 2733-2751.
9. Wang, X., et al. 2024. Key roles of autophagosome/endosome maturation mediated by Syntaxin17 in methamphetamine-induced neuronal damage in mice. *Mol. Med.* 30: 4.

RESEARCH USE

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