

Exo70 (D-6): sc-365825



The Power to Question

BACKGROUND

Exocytosis is crucial in membrane trafficking and it mediates hormone and neurotransmitter secretion out of the cell, as well as the incorporation of membrane proteins and lipids to the plasma membrane. It is crucial for cell-cell communication, cell growth and cell polarity. The exocyst complex is a multi-protein complex that consists of Sec3, Sec5, Sec6, Sec8, Sec10, Sec15, Exo70 and Exo84, and is essential for targeting exocytic vesicles to specific docking sites on the plasma membrane. Exo70, also known as EXOC7 (exocyst complex component 7), EXOC1 or 2-5-3p, is a 735 amino acid peripheral membrane protein that is a component of the exocyst complex. Localized to the cytoplasm and the cell membrane, Exo70 plays an essential role in the docking of exocystic vesicles to target sites on the plasma membrane and, specifically, may be involved in Insulin-induced protein docking within the cell. Four isoforms of Exo70 are expressed due to alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: EXOC7 (human) mapping to 17q25.1; Exoc7 (mouse) mapping to 11 E2.

SOURCE

Exo70 (D-6) is a mouse monoclonal antibody raised against amino acids 436-735 mapping at the C-terminus of Exo70 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.

Exo70 (D-6) is available conjugated to agarose (sc-365825 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365825 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365825 PE), fluorescein (sc-365825 FITC), Alexa Fluor® 488 (sc-365825 AF488), Alexa Fluor® 546 (sc-365825 AF546), Alexa Fluor® 594 (sc-365825 AF594) or Alexa Fluor® 647 (sc-365825 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365825 AF680) or Alexa Fluor® 790 (sc-365825 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Exo70 (D-6) is recommended for detection of Exo70 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), 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 Exo70 siRNA (h): sc-94143, Exo70 siRNA (m): sc-144969, Exo70 shRNA Plasmid (h): sc-94143-SH, Exo70 shRNA Plasmid (m): sc-144969-SH, Exo70 shRNA (h) Lentiviral Particles: sc-94143-V and Exo70 shRNA (m) Lentiviral Particles: sc-144969-V.

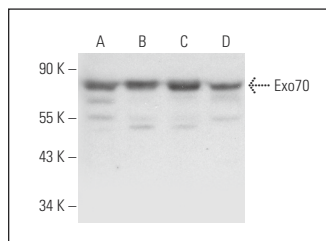
Molecular Weight of Exo70: 70 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or MOLT-4 cell lysate: sc-2233.

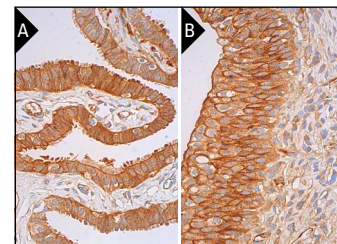
STORAGE

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

DATA



Exo70 (D-6): sc-365825. Western blot analysis of Exo70 expression in HeLa (A), Jurkat (B), MOLT-4 (C) and Hep G2 (D) whole cell lysates.



Exo70 (D-6): sc-365825. Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing cytoplasmic and membrane staining of glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing cytoplasmic and membrane staining of urothelial cells (B).

SELECT PRODUCT CITATIONS

1. Germain, M.A., et al. 2014. Elucidating novel hepatitis C virus-host interactions using combined mass spectrometry and functional genomics approaches. *Mol. Cell. Proteomics* 13: 184-203.
2. Georgilis, A., et al. 2018. PTBP1-mediated alternative splicing regulates the inflammatory secretome and the pro-tumorigenic effects of senescent cells. *Cancer Cell* 34: 85-102.e9.
3. Fujimoto, B.A., et al. 2019. The exocyst complex regulates Insulin-stimulated glucose uptake of skeletal muscle cells. *Am. J. Physiol. Endocrinol. Metab.* 317: E957-E972.
4. Bridges, E., et al. 2020. RHOQ is induced by DLL4 and regulates angiogenesis by determining the intracellular route of the Notch intracellular domain. *Angiogenesis* 23: 493-513.
5. Kuramoto, K., et al. 2021. The autophagy protein Becn1 improves Insulin sensitivity by promoting adiponectin secretion via exocyst binding. *Cell Rep.* 35: 109184.
6. Bjørnstad, S.A., et al. 2022. Rab33b-exocyst interaction mediates localized secretion for focal adhesion turnover and cell migration. *iScience* 25: 104250.
7. Nakamura, N.K., et al. 2022. The exocyst is required for CD36 fatty acid translocase trafficking and free fatty acid uptake in skeletal muscle cells. *Cells* 11: 2440.
8. Hou, J., et al. 2024. TGM1/3-mediated transamidation of Exo70 promotes tumor metastasis upon LKB1 inactivation. *Cell Rep.* 43: 114604.

RESEARCH USE

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

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA