

Endophilin II (A-11): sc-365704

BACKGROUND

The Endophilins comprise a family of three SH3 domain-containing proteins designated Endophilin I, II and III, or alternatively known as SH3P4, SH3P8 and SH3P13, respectively. These proteins associate with amphiphysin, synaptojanin and dynamin and are implicated in presynaptic vesicle trafficking at nerve terminals. The expression patterns of the endophilins are consistent with their cellular functions at the neuronal synapse as Endophilin I is expressed only in the brain. Both Endophilin II and Endophilin III are detected in a variety of tissues. Endophilin I is also implicated in modulating G protein-coupled receptor signaling by functioning as an adapter protein and directing β_1 -adrenergic receptors to the endocytic machinery.

CHROMOSOMAL LOCATION

Genetic locus: SH3GL1 (human) mapping to 19p13.3; Sh3gl1 (mouse) mapping to 17 D.

SOURCE

Endophilin II (A-11) is a mouse monoclonal antibody raised against amino acids 256-315 of Endophilin II of human origin.

PRODUCT

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

Endophilin II (A-11) is available conjugated to agarose (sc-365704 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365704 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365704 PE), fluorescein (sc-365704 FITC), Alexa Fluor[®] 488 (sc-365704 AF488), Alexa Fluor[®] 546 (sc-365704 AF546), Alexa Fluor[®] 594 (sc-365704 AF594) or Alexa Fluor[®] 647 (sc-365704 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-365704 AF680) or Alexa Fluor[®] 790 (sc-365704 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Endophilin II (A-11) is recommended for detection of Endophilin II of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 Endophilin II siRNA (h): sc-35306, Endophilin II siRNA (m): sc-35307, Endophilin II shRNA Plasmid (h): sc-35306-SH, Endophilin II shRNA Plasmid (m): sc-35307-SH, Endophilin II shRNA (h) Lentiviral Particles: sc-35306-V and Endophilin II shRNA (m) Lentiviral Particles: sc-35307-V.

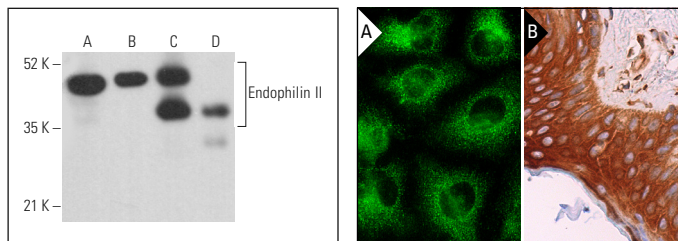
Molecular Weight of Endophilin II: 45 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, RT-4 whole cell lysate: sc-364257 or NIH/3T3 whole cell lysate: sc-2210.

STORAGE

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

DATA



Endophilin II (A-11): sc-365704. Western blot analysis of Endophilin II expression in NIH/3T3 (A), 3T3-L1 (B), RT-4 (C) and A-431 (D) whole cell lysates. Detection reagent used: m-IgG κ BP-HRP: sc-516102.

Endophilin II (A-11): sc-365704. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of keratinocytes, fibroblasts, Langerhans cells and melanocytes (B).

SELECT PRODUCT CITATIONS

- Boucrot, E., et al. 2015. Endophilin marks and controls a clathrin-independent endocytic pathway. *Nature* 517: 460-465.
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- Genet, G., et al. 2019. Endophilin-A2 dependent VEGFR2 endocytosis promotes sprouting angiogenesis. *Nat. Commun.* 10: 2350.
- Pereira, P.M.R., et al. 2020. Acute statin treatment improves antibody accumulation in EGFR- and PSMA-expressing tumors. *Clin. Cancer Res.* 26: 6215-6229.
- Li, X., et al. 2021. Dependence of SARS-CoV-2 infection on cholesterol-rich lipid raft and endosomal acidification. *Comput. Struct. Biotechnol. J.* 19: 1933-1943.
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- Liu, Y., et al. 2021. Endophilin A2-mediated alleviation of endoplasmic reticulum stress-induced cardiac injury involves the suppression of ERO1 α /IP3R signaling pathway. *Int. J. Biol. Sci.* 17: 3672-3688.
- Markworth, R., et al. 2021. Tubular microdomains of Rab7-positive endosomes retrieve TrkA, a mechanism disrupted in Charcot-Marie-Tooth disease 2B. *J. Cell Sci.* 134: jcs258559.
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RESEARCH USE

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