

EEA1 (E-8): sc-365652

BACKGROUND

Early endosomes are cytoplasmic compartments that function in receiving and sorting endocytosed proteins for vesicular transport. EEA1 (early endosome antigen 1) is a peripheral membrane protein that co-localizes with the transferrin receptor and Rab5 on early endosomes. EEA1 contains a calmodulin-binding IQ motif and cysteine rich finger motif necessary for its specific localization to the early endosomes. EEA1 has sequence homology to several yeast proteins that have been implicated in membrane trafficking, including Vps27, Fab1 and Vac1. Evidence suggests a possible role for EEA1 in mediating the regulatory effects of 3'-phosphoinositides on membrane trafficking.

CHROMOSOMAL LOCATION

Genetic locus: EEA1 (human) mapping to 12q22; Eea1 (mouse) mapping to 10 C2.

SOURCE

EEA1 (E-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-27 at the N-terminus of EEA1 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.

EEA1 (E-8) is available conjugated to agarose (sc-365652 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365652 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365652 PE), fluorescein (sc-365652 FITC), Alexa Fluor® 488 (sc-365652 AF488), Alexa Fluor® 546 (sc-365652 AF546), Alexa Fluor® 594 (sc-365652 AF594) or Alexa Fluor® 647 (sc-365652 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365652 AF680) or Alexa Fluor® 790 (sc-365652 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365652 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

EEA1 (E-8) is recommended for detection of EEA1 of mouse, rat, human and monkey 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).

EEA1 (E-8) is also recommended for detection of EEA1 in additional species, including porcine.

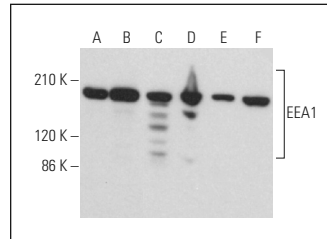
Suitable for use as control antibody for EEA1 siRNA (h): sc-35263, EEA1 siRNA (m): sc-35264, EEA1 shRNA Plasmid (h): sc-35263-SH, EEA1 shRNA Plasmid (m): sc-35264-SH, EEA1 shRNA (h) Lentiviral Particles: sc-35263-V and EEA1 shRNA (m) Lentiviral Particles: sc-35264-V.

Molecular Weight of EEA1: 162 kDa.

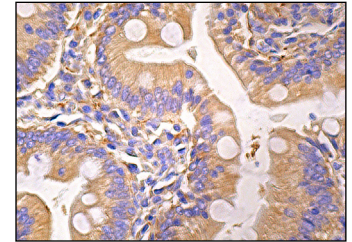
STORAGE

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

DATA



EEA1 (E-8): sc-365652. Western blot analysis of EEA1 expression in NIH/3T3 (A), RAW 264.7 (B), 3611-RF (C), HeLa (D), Jurkat (E) and NAMALWA (F) whole cell lysates.



EEA1 (E-8): sc-365652. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Huang, S.H., et al. 2013. Epidermal growth factor receptor-containing exosomes induce tumor-specific regulatory T cells. *Cancer Invest.* 31: 330-335.
- Bakthavatsalam, D., et al. 2014. Chaperonin-containing TCP-1 complex directly binds to the cytoplasmic domain of the LOX-1 receptor. *FEBS Lett.* 588: 2133-2140.
- Jian, J., et al. 2016. Progranulin recruits HSP70 to β -glucocerebrosidase and is therapeutic against gaucher disease. *EBioMedicine* 13: 212-224.
- Hou, W., et al. 2017. Molecular cloning and characterization of the genes encoding the proteins of Zika virus. *Gene* 628: 117-128.
- Alberti, D., et al. 2018. Efficient route to label mesenchymal stromal cell-derived extracellular vesicles. *ACS Omega* 3: 8097-8103.
- Daynac, M., et al. 2018. Lgl1 controls NG2 endocytic pathway to regulate oligodendrocyte differentiation and asymmetric cell division and gliomagenesis. *Nat. Commun.* 9: 2862.
- You, X., et al. 2018. PYR-41 and thalidomide impair dendritic cell cross-presentation by inhibiting mydosome formation and attenuating the endosomal recruitments of p97 and Sec61 via NF κ B inactivation. *J. Immunol. Res.* 2018: 5070573.
- Ajikumar, A., et al. 2019. Neutrophil-derived microvesicle induced dysfunction of brain microvascular endothelial cells *in vitro*. *Int. J. Mol. Sci.* 20: 5227.
- Liu, Z., et al. 2020. LRRK2 and Rab10 coordinate macropinocytosis to mediate immunological responses in phagocytes. *EMBO J.* E-published.

RESEARCH USE

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

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