EP58 (C-3): sc-390065

BACKGROUND

Soluble proteins in the endoplasmic reticulum (ER) contain a specific carboxy terminal sequence KDEL (Lys-Asp-Glu-Leu), and include the coat proteins required for vesicle budding from the ER, proteins that form retrograde vesicles on post-ER compartments, and integral membrane proteins that target vesicles to their correct destination. The retention of these soluble proteins in the ER depends on the interaction of the KDEL sequence with the corresponding KDEL receptor in the Golgi apparatus. When KDEL proteins reach the Golgi complex, they are recognized by the KDEL receptor and transported retrograde in COPI-coated vesicles back to the ER. A novel ligand ER protein 58 (EP58) shares no significant homology to any of the known ER-resident proteins. EP58 is primarily expressed in embryo, placenta, and adult heart. Sequence similarity to bacterial and fungus proteins suggests a possible role for EP58 in polysaccharide biosynthesis.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: KDELC1 (human) mapping to 13q33.1; Kdelc1 (mouse) mapping to 1 C1.1.

SOURCE

EP58 (C-3) is a mouse monoclonal antibody raised against amino acids 21-78 mapping near the N-terminus of EP58 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.

EP58 (C-3) is available conjugated to agarose (sc-390065 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390065 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390065 PE), fluorescein (sc-390065 FITC), Alexa Fluor® 488 (sc-390065 AF488), Alexa Fluor® 546 (sc-390065 AF546), Alexa Fluor® 594 (sc-390065 AF594) or Alexa Fluor® 647 (sc-390065 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390065 AF680) or Alexa Fluor® 790 (sc-390065 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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

APPLICATIONS

EP58 (C-3) is recommended for detection of EP58 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).


Molecular Weight of EP58: 58 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, HeLa whole cell lysate: sc-2200 or FHS173We whole cell lysate: sc-2417.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA

EP58 (C-3): sc-390065. Western blot analysis of EP58 expression in HL-60(A) and FHS 173We (B) whole cell lysates.

EP58 (C-3): sc-390065. Western blot analysis of EP58 expression in HeLa (A) and 3T3-L1 (B) whole cell lysates.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.