SANTA CRUZ BIOTECHNOLOGY, INC.

p115 (H-11): sc-48363

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The mammalian protein p115, known also as transcytosis-associated protein (TAP)/tethering factor/vesicle docking protein, and its yeast homolog Uso1p have an essential role in membrane trafficking. p115 is phosphorylated in interphase but not in mitotic cells. Phosphorylated p115 is localized to the cytosol, whereas the unphosphorylated form is associated with membranes, mostly of the Golgi complex. Upon phosphorylation of p115 at Ser942, p115 is released from the membranes. In mammary glands, p115 synthesis is dependent of the stage of lactation. Both Giantin and GM130 compete for binding to the C-terminal acidic domain of p115, and p115-Giantin and p115-GM130 interactions mediate independent membrane tethering events. The amino-terminal region of p115 is required for its localization to the Golgi. p115 is also expressed on transcytotic vesicles, where it is required for vesicle fusion with the target membrane and vesicular tubular clusters, which are involved in ER to Golgi transport. Rab 1 recruits p115 to coat protein complex II (COPII) vesicles during budding from the endoplasmic reticulum, where it interacts with a select set of SNAREs. P115 is a general factor acting within the secretory and endocytic pathways to bind transport vesicles prior to membrane fusion.

CHROMOSOMAL LOCATION

Genetic locus: USO1 (human) mapping to 4q21.1; Uso1 (mouse) mapping to 5 E2.

SOURCE

p115 (H-11) is a mouse monoclonal antibody raised against amino acids 1-300 of p115 of human origin.

PRODUCT

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

p115 (H-11) is available conjugated to agarose (sc-48363 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-48363 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-48363 PE), fluorescein (sc-48363 FITC), Alexa Fluor® 488 (sc-48363 AF488), Alexa Fluor® 546 (sc-48363 AF546), Alexa Fluor® 594 (sc-48363 AF594) or Alexa Fluor® 647 (sc-48363 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-48363 AF680) or Alexa Fluor® 790 (sc-48363 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

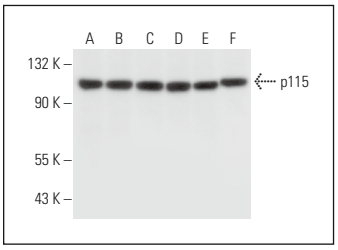
p115 (H-11) is recommended for detection of p115 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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 p115 siRNA (h): sc-41281, p115 siRNA (m): sc-41283, p115 shRNA Plasmid (h): sc-41281-SH, p115 shRNA Plasmid (m): sc-41283-SH, p115 shRNA (h) Lentiviral Particles: sc-41281-V and p115 shRNA (m) Lentiviral Particles: sc-41283-V.

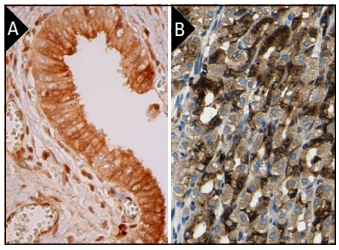
Molecular Weight of p115: 115 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

DATA



p115 (H-11): sc-48363. Western blot analysis of p115 expression in MCF7 (**A**), Jurkat (**B**), Hep G2 (**C**), HeLa (**D**), MES-SA/Dx5 (**E**) and HEK293 (**F**) whole cell lysates.



p115 (H-11): sc-48363. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic, membrane and nuclear staining of glandular cells and nuclear staining of Interstitial cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing cytoplasmic staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

SELECT PRODUCT CITATIONS

1. Jinesh, G.G., et al. 2016. Mitochondrial oligomers boost glycolysis in cancer stem cells to facilitate blebbishield-mediated transformation after apoptosis. Cell Death Discov. 2: 16003.
2. Taoka, R., et al. 2017. CF3DODA-Me induces apoptosis, degrades Sp1, and blocks the transformation phase of the blebbishield emergency program. Apoptosis 22: 719-729.
3. Indrieri, A., et al. 2019. MiR-181a/b downregulation exerts a protective action on mitochondrial disease models. EMBO Mol. Med. 11: e8734.
4. Keogh, A., et al. 2022. USO1 expression is dysregulated in non-small cell lung cancer. Transl. Lung Cancer Res. 11: 1877-1895.

RESEARCH USE

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