

EB3 (7): sc-136405

BACKGROUND

EB1 (MAPRE2, microtubule-associated protein, RP/EB family, member 2, EB2, RP1) may influence tumorigenesis of colorectal cancers and proliferative control of normal cells. EB1 may belong to the intermediate/early gene family, involved in the signal transduction cascade downstream of the TCR. Colorectal cancer is caused by the pathologic transformation of normal colonic epithelium to an adenomatous polyp, which can become an invasive cancer. APC (adenomatous polyposis coli) is a tumor suppressor gene, the mutation of which is one of the earliest events in colorectal carcinogenesis. A majority of the mutations result in the loss of the carboxy terminus of APC. EB1 has been shown to bind to the carboxy terminal region of APC, which implicates EB1 in APC suppression of colonic cancer. EB1 overexpression may play a role in the development of human esophageal squamous cell carcinoma (ESCC) by affecting APC function and activating the β -catenin/TCF pathway. EB3 is related to EB1 and likewise associates with the microtubule cytoskeleton. EB3 is expressed predominantly in the central nervous system and preferentially associates with APCL.

CHROMOSOMAL LOCATION

Genetic locus: MAPRE3 (human) mapping to 2p23.3; Mapre3 (mouse) mapping to 5 B1.

SOURCE

EB3 (7) is a mouse monoclonal antibody raised against amino acids 131-222 of EB3 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EB3 (7) is available conjugated to agarose (sc-136405 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; and to HRP (sc-136405 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA.

STORAGE

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

APPLICATIONS

EB3 (7) is recommended for detection of EB3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for EB3 siRNA (h): sc-37608, EB3 shRNA Plasmid (h): sc-37608-SH and EB3 shRNA (h) Lentiviral Particles: sc-37608-V.

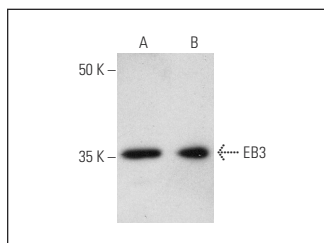
Molecular Weight of EB3: 32 kDa.

Positive Controls: mouse cerebellum extract: sc-2403, mouse brain extract: sc-2253 or human brain extract: sc-364375.

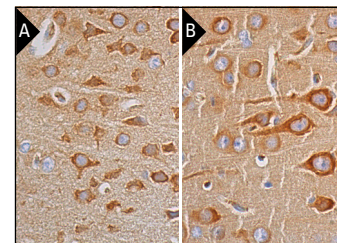
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



EB3 (7): sc-136405. Western blot analysis of EB3 expression in mouse cerebellum (A) and human brain (B) tissue extracts.



EB3 (7): sc-136405. Immunoperoxidase staining of formalin fixed, paraffin-embedded human brain (A) and rat brain (B) tissue showing cytoplasmic staining of neuronal cells, glial cells and endothelial cells.

SELECT PRODUCT CITATIONS

- Stolz, A., et al. 2015. A phenotypic screen identifies microtubule plus end assembly regulators that can function in mitotic spindle orientation. *Cell Cycle* 14: 827-837.
- Tapia Contreras, C. and Hoyer-Fender, S. 2020. The WD40-protein CFAP52/WDR16 is a centrosome/basal body protein and localizes to the manchette and the flagellum in male germ cells. *Sci. Rep.* 10: 14240.

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.