

## EB1 (H-70): sc-15347

### BACKGROUND

EB1 (end-binding protein 1), also known as microtubule-associated protein RP/EB family member 1 (MAPRE1) or APC-binding protein EB1, may influence tumorigenesis of colorectal cancers and proliferative control of normal cells. EB1 belongs to the intermediate/early gene family, involved in the signal transduction cascade downstream of the T cell receptor (TRC). 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 by affecting APC function and activating the  $\beta$ -catenin/TCF pathway.

### CHROMOSOMAL LOCATION

Genetic locus: MAPRE1 (human) mapping to 20q11.21; Mapre1 (mouse) mapping to 2 H1.

### SOURCE

EB1 (H-70) is a rabbit polyclonal antibody raised against amino acids 133-202 mapping near the C-terminus of EB1 of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

### APPLICATIONS

EB1 (H-70) is recommended for detection of EB1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

EB1 (H-70) is also recommended for detection of EB1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for EB1 siRNA (h): sc-35258, EB1 siRNA (m): sc-35257, EB1 shRNA Plasmid (h): sc-35258-SH, EB1 shRNA Plasmid (m): sc-35257-SH, EB1 shRNA (h) Lentiviral Particles: sc-35258-V and EB1 shRNA (m) Lentiviral Particles: sc-35257-V.

Molecular Weight of EB1: 30-38 kDa.

Positive Controls: EB1 (h2): 293T Lysate: sc-177161, SW480 cell lysate: sc-2219 or HeLa whole cell lysate: sc-2200.

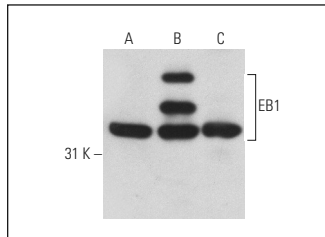
### STORAGE

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

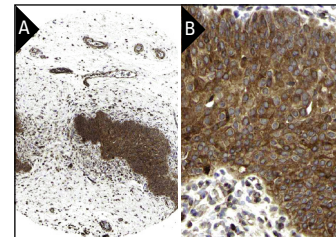
### RESEARCH USE

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

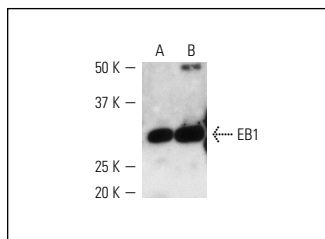
### DATA



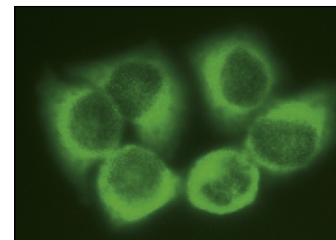
EB1 (H-70): sc-15347. Western blot analysis of EB1 expression in non-transfected 293T: sc-117752 (A), human EB1 transfected 293T: sc-177161 (B) and SW480 (C) whole cell lysates.



EB1 (H-70): sc-15347. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing cytoplasmic staining of surface epithelial cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.



EB1 (H-70): sc-15347. Western blot analysis of EB1 expression in HeLa (A) and LS1034 (B) whole cell lysates.



EB1 (H-70): sc-15347. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

### SELECT PRODUCT CITATIONS

1. Temburni, M.K., et al. 2004. Neuronal nicotinic synapse assembly requires the adenomatous polyposis coli tumor suppressor protein. *J. Neurosci.* 24: 6776-6784.
2. Patel, P.C., et al. 2009. Proteomic analysis of microtubule-associated proteins during macrophage activation. *Mol. Cell. Proteomics* 8: 2500-2514.
3. Averette, K.M., et al. 2009. Anthrax lethal toxin induced lysosomal membrane permeabilization and cytosolic cathepsin release is Nlrp1b/Nalp1b-dependent. *PLoS ONE* 4: e7913.
4. Shieh, D.B., et al. 2010. Effects of genistein on  $\beta$ -catenin signaling and subcellular distribution of actin-binding proteins in human umbilical CD105-positive stromal cells. *J. Cell. Physiol.* 223: 423-434.
5. Chen, Y.T., et al. 2013. Microtubule-associated histone deacetylase 6 supports the calcium store sensor STIM1 in mediating malignant cell behaviors. *Cancer Res.* 73: 4500-4509.

**MONOS**  
Satisfaction  
Guaranteed

Try **EB1 (1A11/4): sc-47704** or **EB1 (F-7): sc-374474**, our highly recommended monoclonal alternatives to EB1 (H-70). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **EB1 (1A11/4): sc-47704**.