

EB1 (KT51): sc-101474

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 β -catenin/TCF pathway.

REFERENCES

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CHROMOSOMAL LOCATION

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

SOURCE

EB1 (KT51) is a rat monoclonal antibody raised against amino acids 125-268 mapping at the C-terminus of EB1 of mouse origin.

PRODUCT

Each vial contains 100 μ g IgG_{2a} in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

EB1 (KT51) is recommended for detection of EB1 of mouse, human, hamster and ape 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

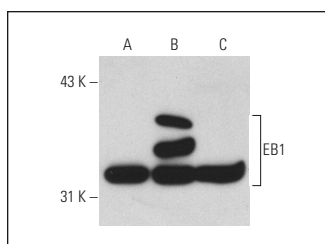
Molecular Weight of EB1: 30-38 kDa.

Positive Controls: EB1 (h2): 293T Lysate: sc-177161, SW480 cell lysate: sc-2219 or NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rat IgG-HRP: sc-2006 (dilution range: 1:2000-1:32,000) or Cruz Marker[™] compatible goat anti-rat IgG-HRP: sc-2032 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rat IgG-FITC: sc-2011 (dilution range: 1:100-1:400) or goat anti-rat IgG-TR: sc-2782 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



EB1 (KT51): sc-101474. 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.

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.