

# EB3 (m): 293T Lysate: sc-119900

## 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  $\beta$ -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.

## REFERENCES

1. Cottrell, S., et al. 1992. Molecular analysis of APC mutations in familial adenomatous polyposis and sporadic colon carcinomas. *Lancet* 340: 626-630.
2. Smith, K.J., et al. 1993. The APC gene product in normal and tumor cells. *Proc. Natl. Acad. Sci. USA* 90: 2846-2850.
3. Levy, D.B., et al. 1994. Inactivation of both APC alleles in human and mouse tumors. *Cancer Res.* 54: 5953-5958.
4. Su, L.K., et al. 1995. APC binds to the novel protein EB1. *Cancer Res.* 55: 2972-2977.
5. Oda, H., et al. 1996. Somatic mutations of the APC gene in sporadic hepatoblastomas. *Cancer Res.* 56: 3320-3323.
6. Gryfe, R., et al. 1997. Molecular biology of colorectal cancer. *Curr. Prob. Cancer* 21: 233-300.

## CHROMOSOMAL LOCATION

Genetic locus: Mapre3 (mouse) mapping to 5 B1.

## PRODUCT

EB3 (m): 293T Lysate represents a lysate of mouse EB3 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

EB3 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive EB3 antibodies. Recommended use: 10-20  $\mu$ l per lane.

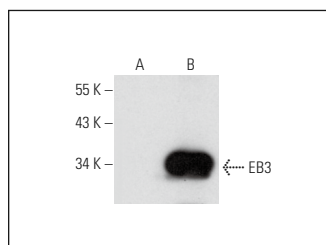
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

EB3 (7): sc-136405 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse EB3 expression in EB3 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

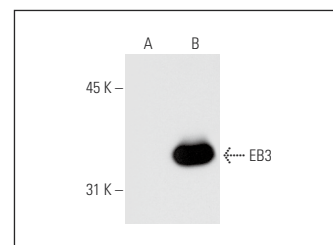
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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.

## DATA



EB3 (7): sc-136405. Western blot analysis of EB3 expression in non-transfected: sc-117752 (A) and mouse EB3 transfected: sc-119900 (B) 293T whole cell lysates.



EB3 (KT36): sc-101475. Western blot analysis of EB3 expression in non-transfected: sc-117752 (A) and mouse EB3 transfected: sc-119900 (B) 293T whole cell lysates.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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](http://www.scbt.com) for detailed protocols and support products.