SANTA CRUZ BIOTECHNOLOGY, INC.

MCC (h3): 293T Lysate: sc-177522

BACKGROUND

MCC (mutated in colorectal cancers), also known as MCC1, is a coiled-coil protein that localizes to the cytoplasm. It is involved in cell cycle regulation, negatively regulating cell cycle progression during the G_1 to S transition via a role in the NFκB signaling pathway. More specifically, MCC interacts with the NFκB inhibitor, IκB-β, playing a role in its stabilization and thereby inhibiting the nuclear translocation and signaling of NFκB. This suggests that MCC may act as a tumor suppressor. MCC is a phosphorylated protein and the state of phosphorylation changes in relation to the cell cycle. This implies that its function may be regulated by phosphorylation. MCC is highly phosphorylated during the transition from G_1 to S phase and weakly phosphorylated in G_0/G_1. The overexpression of MCC results in a decreased number of cells entering S phase.

REFERENCES

1. Kinzler, K.W., et al. 1991. Identification of a gene located at chromosome 5q21 that is mutated in colorectal cancers. Science 251: 1366-1370.
2. Matsumine, A., et al. 1996. MCC, a cytoplasmic protein that blocks cell cycle progression from the G_0/G_1 to S phase. J. Biol. Chem. 271: 10341-10346.
3. Fang, D.C., et al. 2002. Telomere erosion is independent of microsatellite instability but related to loss of heterozygosity in gastric cancer. World J. Gastroenterol. 7: 522-526.
4. Wang, M., et al. 2002. The possible role of loss of heterozygosity at APC, MCC and DCC genetic loci in esophageal carcinoma. Zhonghua Zhong Liu Za Zhi 21: 16-18.
5. Sikdar, N., et al. 2003. Loss of heterozygosity at APC and MCC genes of oral cancer and leukoplakia tissues from Indian tobacco chewers. J. Oral Pathol. Med. 32: 450-454.
6. Wang, D., et al. 2003. Study of loss of heterozygosity at DCC and APC/MCC genetic loci of gastric cancer. Chin. Med. Sci. J. 14: 107-111.

CHROMOSOMAL LOCATION

Genetic locus: MCC (human) mapping to 5q22.2.

PRODUCT

MCC (h3): 293T Lysate represents a lysate of human MCC transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

MCC (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive MCC antibodies. Recommended use: 10-20 µl per lane.

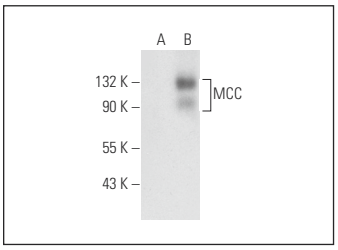
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

MCC (A-9): sc-398216 is recommended as a positive control antibody for Western Blot analysis of enhanced human MCC expression in MCC transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

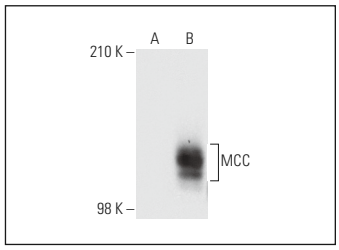
RECOMMENDED SUPPORT REAGENTS

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



MCC (A-9): sc-398216. Western blot analysis of MCC expression in non-transfected: sc-117752 (**A**) and human MCC transfected: sc-177522 (**B**) 293T whole cell lysates.



MCC (1): sc-135982. Western blot analysis of MCC expression in non-transfected: sc-117752 (**A**) and human MCC transfected: sc-177522 (**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 for detailed protocols and support products.