

Mnt (h): 293T Lysate: sc-112501

BACKGROUND

Mnt (Max binding protein), also known as MAD6, ROX, bHLHd3 (class D basic helix-loop-helix protein 3) or MXD6, is a 582 amino acid nuclear protein that forms a complex with Max (Myc-associated factor X) to repress transcription. Mnt contains one basic helix-loop-helix (bHLH) domain and is encoded by a gene that maps to human chromosome 17p13.3. Chromosome 17 comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair versus cell death. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, though specifically it is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

REFERENCES

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- Minamoto, T., et al. 2001. Distinct pattern of p53 phosphorylation in human tumors. *Oncogene* 20: 3341-3347.
- Toyo-oka, K., et al. 2004. Loss of the Max-interacting protein Mnt in mice results in decreased viability, defective embryonic growth and craniofacial defects: relevance to Miller-Dieker syndrome. *Hum. Mol. Genet.* 13: 1057-1067.

CHROMOSOMAL LOCATION

Genetic locus: MNT (human) mapping to 17p13.3.

PRODUCT

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

APPLICATIONS

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

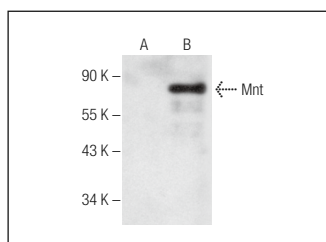
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Mnt (G-2): sc-376771 is recommended as a positive control antibody for Western Blot analysis of enhanced human Mnt expression in Mnt transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

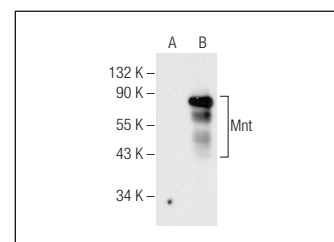
RECOMMENDED SUPPORT REAGENTS

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



Mnt (G-2): sc-376771. Western blot analysis of Mnt expression in non-transfected: sc-117752 (A) and human Mnt transfected: sc-112501 (B) 293T whole cell lysates.



Mnt (F-11): sc-376708. Western blot analysis of Mnt expression in non-transfected: sc-117752 (A) and human Mnt transfected: sc-112501 (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.