

# BCDIN3 (H-7): sc-365995

## BACKGROUND

BCDIN3 (bicoid-interacting protein 3), also known as MEPCE (methylphosphate capping enzyme), is a 689 amino acid protein that contains one BIN3 domain and belongs to the methyltransferase superfamily. Expressed in lung, brain, kidney, testis, mammary gland and cerebellum, BCDIN3 exists as a component of the multi-protein 7SK snRNP complex and functions as an S-adenosyl-L-methionine-dependent methyltransferase that stabilizes 7SK snRNA, specifically by adding a methylphosphate cap at the 5'-end of the snRNA. In addition to its expression in normal tissues, BCDIN3 is also present in chronic myeloid leukemia cells, suggesting a role in tumor progression and metastasis. The gene encoding BCDIN3 maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Defects in some of the genes localized to chromosome 7 have been linked to Osteogenesis imperfecta, Williams-Beuren syndrome, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: MEPCE (human) mapping to 7q22.1; Mepce (mouse) mapping to 5 G2.

## SOURCE

BCDIN3 (H-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-25 at the N-terminus of BCDIN3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>3</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

BCDIN3 (H-7) is recommended for detection of BCDIN3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

BCDIN3 (H-7) is also recommended for detection of BCDIN3 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for BCDIN3 siRNA (h): sc-72627, BCDIN3 siRNA (m): sc-72628, BCDIN3 shRNA Plasmid (h): sc-72627-SH, BCDIN3 shRNA Plasmid (m): sc-72628-SH, BCDIN3 shRNA (h) Lentiviral Particles: sc-72627-V and BCDIN3 shRNA (m) Lentiviral Particles: sc-72628-V.

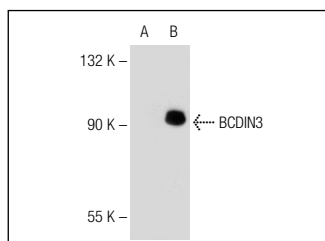
Molecular Weight of BCDIN3: 74 kDa.

Positive Controls: BCDIN3 (m): 293T Lysate: sc-118775.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker<sup>™</sup> compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## DATA



BCDIN3 (H-7): sc-365995. Western blot analysis of BCDIN3 expression in non-transfected: sc-117752 (A) and mouse BCDIN3 transfected: sc-118775 (B) 293T 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.