SANTA CRUZ BIOTECHNOLOGY, INC.

MBLAC2 (D-12): sc-136733

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The Power to Question

BACKGROUND

MBLAC2 (metallo-β-lactamase domain-containing protein 2), also known as β-lactamase-like, is a 279 amino acid protein that belongs to the glyoxalase II family and metallo-β-lactamase superfamily. Existing as two alternatively spliced isoforms, MBLAC2 binds two zinc ions and is encoded by a gene that maps to human chromosome 5q14.3. Chromosome 5 contains 181 million base pairs and comprises nearly 6% of the human genome. Chromosome 5 is associated with Cockayne syndrome through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is also chromosome 5-associated and is caused by insertions or deletions within the TCOF1 gene. Deletion of the p arm of chromosome 5 leads to cri du chat syndrome, while deletion of the q arm or of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

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2. Saltman, D.L., et al. 1993. A physical map of 15 loci on human chromosome 5q23-q33 by two-color fluorescence *in situ* hybridization. Genomics 16: 726-732.
3. Kadmon, M., et al. 2001. Duodenal adenomatosis in familial adenomatous polyposis coli. A review of the literature and results from the heidelberg polyposis register. Int. J. Colorectal Dis. 16: 63-75.
4. South, S.T., et al. 2006. A new genomic mechanism leading to cri-du-chat syndrome. Am. J. Med. Genet. A 140: 2714-2720.
5. Aretz, S., et al. 2007. Somatic APC mosaicism: a frequent cause of familial adenomatous polyposis (FAP). Hum. Mutat. 28: 985-992.
6. Cleaver, J.E., et al. 2007. Cockayne syndrome exhibits dysregulation of p21 and other gene products that may be independent of transcription-coupled repair. Neuroscience 145: 1300-1308.
7. Herry, A., et al. 2007. Redefining monosomy 5 by molecular cytogenetics in 23 patients with MDS/AML. Eur. J. Haematol. 78: 457-467.

CHROMOSOMAL LOCATION

Genetic locus: MBLAC2 (human) mapping to 5q14.3; Mblac2 (mouse) mapping to 13 C3.

SOURCE

MBLAC2 (D-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of MBLAC2 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136733 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MBLAC2 (D-12) is recommended for detection of MBLAC2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

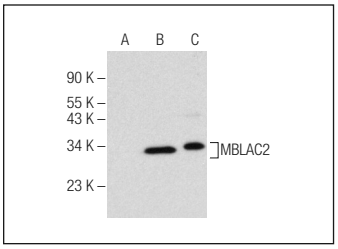
MBLAC2 (D-12) is also recommended for detection of MBLAC2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MBLAC2 siRNA (h): sc-92045, MBLAC2 siRNA (m): sc-108869, MBLAC2 shRNA Plasmid (h): sc-92045-SH, MBLAC2 shRNA Plasmid (m): sc-108869-SH, MBLAC2 shRNA (h) Lentiviral Particles: sc-92045-V and MBLAC2 shRNA (m) Lentiviral Particles: sc-108869-V.

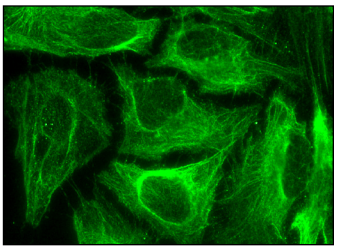
Molecular Weight of MBLAC2 isoforms: 31/22 kDa.

Positive Controls: mouse brain extract: sc-2253 or MBLAC2 (h): 293T Lysate: sc-115432.

DATA



MBLAC2 (D-12): sc-136733. Western blot analysis of MBLAC2 expression in non-transfected: sc-117752 (**A**) and human MBLAC2 transfected: sc-115432 (**B**) 293T whole cell lysates and mouse brain tissue extract (**C**).



MBLAC2 (D-12): sc-136733. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoskeletal localization.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.