

BUD31 (B-9): sc-374163

BACKGROUND

BUD31 (protein G₁₀ homolog, EDG-2) is a 144 amino acid protein encoded by the human gene BUD31. BUD31 is a nuclear protein that belongs to the BUD31 (G₁₀) family. BUD31 is found on chromosome 7 which is about 158 million bases long, encodes over 1,000 genes and makes up about 5% of the human genome. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the long (q) arm of human chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfourt and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia.

REFERENCES

1. Tspouras, P., et al. 1983. Restriction fragment length polymorphism associated with the pro α 2(I) gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. *J. Clin. Invest.* 72: 1262-1267.
2. Liang, H., et al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. *Proc. Natl. Acad. Sci. USA* 95: 3781-3785.
3. Hillier, L.W., et al. 2003. The DNA sequence of human chromosome 7. *Nature* 424: 157-164.

CHROMOSOMAL LOCATION

Genetic locus: BUD31 (human) mapping to 7q22.1; Bud31 (mouse) mapping to 5 G2.

SOURCE

BUD31 (B-9) is a mouse monoclonal antibody raised against amino acids 13-65 mapping near the N-terminus of BUD31 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BUD31 (B-9) is available conjugated to agarose (sc-374163 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374163 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374163 PE), fluorescein (sc-374163 FITC), Alexa Fluor[®] 488 (sc-374163 AF488), Alexa Fluor[®] 546 (sc-374163 AF546), Alexa Fluor[®] 594 (sc-374163 AF594) or Alexa Fluor[®] 647 (sc-374163 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-374163 AF680) or Alexa Fluor[®] 790 (sc-374163 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

BUD31 (B-9) is recommended for detection of BUD31 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

BUD31 (B-9) is also recommended for detection of BUD31 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for BUD31 siRNA (h): sc-89674, BUD31 siRNA (m): sc-105131, BUD31 shRNA Plasmid (h): sc-89674-SH, BUD31 shRNA Plasmid (m): sc-105131-SH, BUD31 shRNA (h) Lentiviral Particles: sc-89674-V and BUD31 shRNA (m) Lentiviral Particles: sc-105131-V.

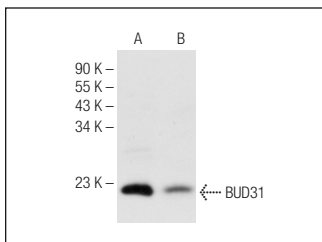
Molecular Weight of BUD31: 17 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or SK-N-MC cell lysate: sc-2237.

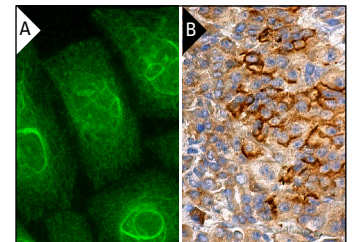
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



BUD31 (B-9): sc-374163. Western blot analysis of BUD31 expression in Jurkat (A) and SK-N-MC (B) whole cell lysates.



BUD31 (B-9): sc-374163. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoskeletal localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing membrane and cytoplasmic staining of Islets of Langerhans and cytoplasmic staining of glandular cells (B).

RESEARCH USE

For research use only, not for use in diagnostic procedures.