

Osteoadherin (B-10): sc-271102

BACKGROUND

Osteoadherin (OSAD) is a bone proteoglycan containing keratan sulfate that belongs to the small leucine-rich proteoglycan (SLRP) family. Osteoadherin promotes Integrin $\alpha_V\beta_3$ -mediated cell binding. The central region of Osteoadherin consists of 11 B-type, leucine-rich repeats ranging in length from 20 to 30 residues. The full, primary sequence of Osteoadherin contains four putative sites for tyrosine sulfation, three of which are at the N-terminal end of the molecule, six assumed sites for N-linked glycosylation, and a large and very acidic C-terminal domain, which is unique to Osteoadherin. Expression of Osteoadherin is limited to extracellular space and the extracellular matrix, as it is a secreted protein.

REFERENCES

1. Sommarin, Y., et al. 1998. Osteoadherin, a cell-binding keratan sulfate proteoglycan in bone, belongs to the family of leucine-rich repeat proteins of the extracellular matrix. *J. Biol. Chem.* 273: 16723-16729.
2. Wendel, M., et al. 1998. Bone matrix proteins: isolation and characterization of a novel cell-binding keratan sulfate proteoglycan (Osteoadherin) from bovine bone. *J. Cell Biol.* 141: 839-847.
3. Shen, Z., et al. 1999. Tissue distribution of a novel cell binding protein, Osteoadherin, in the rat. *Matrix Biol.* 18: 533-542.
4. Buchaille, R., et al. 2000. Expression of the small leucine-rich proteoglycan Osteoadherin/osteo-modulin in human dental pulp and developing rat teeth. *Bone* 27: 265-270.
5. Matsushima, N., et al. 2000. Super-motifs and evolution of tandem leucine-rich repeats within the small proteoglycans—Biglycan, Decorin, Lumican, Fibromodulin, PRELP, Keratocan, Osteoadherin, Epiphygan, and Osteoglycin. *Proteins* 38: 210-225.

CHROMOSOMAL LOCATION

Genetic locus: OMD (human) mapping to 9q22.31.

SOURCE

Osteoadherin (B-10) is a mouse monoclonal antibody raised against amino acids 221-380 mapping within an internal region of Osteoadherin of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Osteoadherin (B-10) is available conjugated to agarose (sc-271102 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271102 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271102 PE), fluorescein (sc-271102 FITC), Alexa Fluor® 488 (sc-271102 AF488), Alexa Fluor® 546 (sc-271102 AF546), Alexa Fluor® 594 (sc-271102 AF594) or Alexa Fluor® 647 (sc-271102 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271102 AF680) or Alexa Fluor® 790 (sc-271102 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Osteoadherin (B-10) is recommended for detection of Osteoadherin of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Osteoadherin siRNA (h): sc-61265, Osteoadherin shRNA Plasmid (h): sc-61265-SH and Osteoadherin shRNA (h) Lentiviral Particles: sc-61265-V.

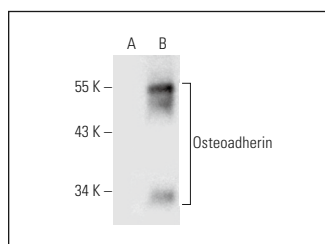
Molecular Weight of Osteoadherin: 60 kDa.

Positive Controls: Osteoadherin (h): 293T Lysate: sc-115940.

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.

DATA



Osteoadherin (B-10): sc-271102. Western blot analysis of Osteoadherin expression in non-transfected: sc-117752 (A) and human Osteoadherin transfected: sc-115940 (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.

PROTOCOLS

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