

OPN (h): 293T Lysate: sc-129310

BACKGROUND

Osteopontin (OPN, also designated bone sialoprotein 1, urinary stone protein, spp-1, Eta-1, nephropontin or uropontin) is an extracellular matrix cell adhesion phosphoglycoprotein. OPN is deposited into unmineralized matrix prior to calcification leading to localization at various tissue interfaces including cement lines, lamina limitans, and between collagen fibrils of fully matured hard tissues. While OPN is a major product of osteoblasts, it is also synthesized by brain and kidney cells. OPNs isolated from or secreted by various tissues ranges in molecular weight due to post-translational modifications. OPN functions as a substrate for transglutaminase and is involved in cell adhesion, chemoattraction and immunomodulation.

REFERENCES

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4. Denhardt, D.T., et al. 1993. Osteopontin: a protein with diverse functions. *FASEB J.* 7: 1475-1482.
5. Butler, W.T. 1995. Structural and functional domains of osteopontin. *Ann. N.Y. Acad. Sci.* 760: 6-11.
6. Weber, G.F., et al. 1996. The immunology of Eta-1/osteopontin. *Cytokine Growth Factor Rev.* 7: 241-248.
7. McKee, M.D., et al. 1996. Osteopontin at mineralized tissue interfaces in bone, teeth, and osseointegrated implants: ultrastructural distribution and implications for mineralized tissue formation, turnover, and repair. *Microsci. Res. Tech.* 33: 141-164.
8. Nemir, M., et al. 1998. Normal rat kidney cells secrete both phosphorylated and nonphosphorylated forms of osteopontin showing different physiological properties. *J. Biol. Chem.* 264: 18202-18208.

CHROMOSOMAL LOCATION

Genetic locus: SPP1 (human) mapping to 4q22.1.

PRODUCT

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

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.

APPLICATIONS

OPN (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive OPN 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.

PROTOCOLS

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