SANTA CRUZ BIOTECHNOLOGY, INC.

S-100A2 (SH-L1): sc-58844

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

S-100A2 (S100L), first isolated from bovine lung, belongs to a large family of calcium binding proteins known as S-100 proteins. S-100A2 is expressed in the basal layer of the epidermis and hair follicles of normal skin. S-100A2 associates with tropomyosin in a calcium-dependent manner. In breast cancer, S-100A2 expression is lost during the development of malignant cells. S-100A2 may play a tumor-suppressor role in certain epithelial tissues by intefering with cell migration. S-100A2 exerts an inhibitory influence on cell motility of head and neck squamous cell carnicomas *in vitro*. Neoplastic gastric epithelial cells express S-100A2 as well as S-100A7, S-100A8, S-100A9 and S-100A10 in greater abundance than normal gastric cells.

REFERENCES

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2. Boni, R., Burg, G., Doguoglu, A., Ilg, E.C., Schafer, B.W., Muller, B. and Heizmann, C.W. 1997. Immunohistochemical localization of the Ca^{2+} binding S-100 proteins in normal human skin and melanocytic lesions. Br. J. Dermatol. 137: 39-43.
3. Gimona, M., Lando, Z., Dolginov, Y., Vandekerckhove, J., Kobayashi, R., Sobieszek, A. and Helfman, D.M. 1997. Ca^{2+}-dependent interaction of S-100A2 with muscle and nonmuscle tropomyosins. J. Cell Sci. 110: 611-621.
4. Liu, D., Rudland, P.S., Sibson, D.R., Platt-Higgins, A. and Barraclough, R. 2000. Expression of calcium-binding protein S-100A2 in breast lesions. Br. J. Cancer 83: 1473-1479.
5. Nagy, N., Brenner, C., Markadieu, N., Chaboteaux, C., Camby, I., Schafer, B.W., Pochet, R., Heizmann, C.W., Salmon, I., Kiss, R. and Decaestecker, C. 2001. S-100A2, a putative tumor suppressor gene, regulates *in vitro* squamous cell carcinoma migration. Lab. Invest. 81: 599-612.
6. El-Rifai, W., Moskaluk, C.A., Abdrabbo, M.K., Harper, J., Yoshida, C., Riggins, G.J., Frierson, H.F., Jr. and Powell, S.M. 2002. Gastric cancers overexpress S-100A calcium-binding proteins. Cancer Res. 62: 6823-6826.

CHROMOSOMAL LOCATION

Genetic locus: S100A2 (human) mapping to 1q21.3; S100a2 (mouse) mapping to 3 F1.

SOURCE

S-100A2 (SH-L1) is a mouse monoclonal antibody raised against full length native S-100A2 of porcine origin.

PRODUCT

Each vial contains 100 µl ascites containing IgG_1 with < 0.1% sodium azide.

PROTOCOLS

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

APPLICATIONS

S-100A2 (SH-L1) is recommended for detection of S-100A2 of mouse, rat and human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:1000), immunoprecipitation [1-2 µl per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution to be determined by researcher, dilution range 1:100-1:200) and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:30-1:3000); non cross-reactive with other members of the EF-hand family including calmodulin, parvalbumin, intestinal calcium-binding protein, S-100A6 (calcyclin), caltropin, S-100 α chain or S-100 β chain.

S-100A2 (SH-L1) is also recommended for detection of S-100A2 in additional species, including bovine, porcine, feline and canine.

Suitable for use as control antibody for S-100A2 siRNA (h): sc-63353, S-100A2 siRNA (m): sc-144017, S-100A2 shRNA Plasmid (h): sc-63353-SH, S-100A2 shRNA Plasmid (m): sc-144017-SH, S-100A2 shRNA (h) Lentiviral Particles: sc-63353-V and S-100A2 shRNA (m) Lentiviral Particles: sc-144017-V.

Molecular Weight of S-100A2: 20 kDa.

SELECT PRODUCT CITATIONS

1. Feng, X., Zhang, J., Chen, W.N. and Ching, C.B. 2011. Proteome profiling of Epstein-Barr virus infected nasopharyngeal carcinoma cell line: identification of potential biomarkers by comparative iTRAQ-coupled 2D LC/MS-MS analysis. J. Proteomics 74: 567-576.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

RESEARCH USE

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