KAI 1 (95-267): sc-4486 WB



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BACKGROUND

The transmembrane 4 superfamily (TM4SF) is a family of leukocyte surface glycoproteins that presumably cross the cell membrane four times. These proteins may be involved in transmembrane signal transduction regulation of cell proliferation, differentiation and motility. Members of this family, which include CD9, CD37, CD53, CD63, CD82 and TAPA-1, share significant sequence homology and an extracellular N-glycosylated domain, implicating these proteins as metastasis suppressors. Only three members of this family have been correlated with metastasis: CD9, CD63 and CD82, also known as KAI 1. KAI 1 is evolutionarily conserved and expressed in a broad range of human tissues, but exhibits reduced expression in human cell lines derived from metastatic prostate tumors. It has been suggested that decreased KAI 1 expression may be involved in the malignant progression of prostate and perhaps other cancers.

REFERENCES

- Horejsi, V. and Vlcek, C. 1991. Novel structurally distinct family of leucocyte surface glycoproteins including CD9, CD37, CD53 and CD63. FEBS Lett. 288: 1-4.
- Tomlinson, M.G., Hanke, T., Hughes, D.A., Barclay, A.N., Scholl, E., Hunig, T. and Wright, M.D. 1995. Characterization of mouse CD53: epitope mapping, cellular distribution and induction by T cell receptor engagement during repertoire selection. Eur. J. Immunol. 25: 2201-2205.
- Carmo, A.M. and Wright, M.D. 1995. Association of the transmembrane 4 superfamily molecule D53 with a Tyrosine phase activity. Eur. J. Immunol. 25: 2090-2095.
- Dong, J.T., Lamb, P.W., Rinker-Schaeffer, C.W., Vukanovic, J., Ichikawa, T., Isaacs, J.T. and Barrett, J.C. 1995. KAI1, a metastasis suppressor gene for prostate cancer on human chromosome 11p11.2. Science 268: 884-886.
- Shaw, A.R., Domanska, A., Mak, A., Gilchrist, A., Dobler, K., Visser, L., Poppema, S., Fliegel, L., Letarte, M. and Willett, B.J. 1995. Ectopic expression of human and feline CD9 in a human B cell line confers β1 integrin-dependent motility on Fibronectin and Laminin substrates and enhanced Tyrosine phosphorylation. J. Biol. Chem. 270: 24092-24099.
- Radford, K.J., Mallesch, J. and Hersey, P. 1995. Suppression of human melanoma cell growth and metastasis by the melanoma-associated antigen CD63 (ME491). Intl. J. Cancer 62: 631-635.

CHROMOSOMAL LOCATION

Genetic locus: CD82 (human) mapping to 11p11.2; Cd82 (mouse) mapping to 2 E1.

SOURCE

KAI 1 (95-267) is expressed in *E. coli* as a 46 kDa tagged fusion protein corresponding to amino acids 95-267 of KAI 1 of human origin.

STORAGE

Store at -20° C. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

KAI 1 (95-267) is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 10 μ g in 0.1 ml SDS-PAGE loading buffer.

APPLICATIONS

KAI 1 (95-267) is suitable as a Western blotting control for sc-1087, sc-5540 and sc-17752.

RESEARCH USE

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

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com