

KAI 1 (G-2): sc-17752

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.

CHROMOSOMAL LOCATION

Genetic locus: CD82 (human) mapping to 11p11.2.

SOURCE

KAI 1 (G-2) is a mouse monoclonal antibody raised against amino acids 95-267 of metastasis suppressor protein (KAI 1) of human origin.

PRODUCT

Each vial contains 200 µg IgG₃ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

KAI 1 (G-2) is recommended for detection of KAI 1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:200-1:1,000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for KAI 1 siRNA (h): sc-35734, KAI 1 shRNA Plasmid (h): sc-35734-SH and KAI 1 shRNA (h) Lentiviral Particles: sc-35734-V.

Molecular Weight of KAI 1: 46 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

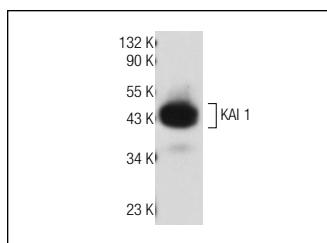
STORAGE

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

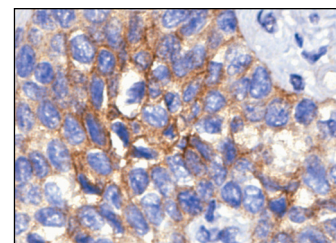
RESEARCH USE

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

DATA



KAI 1 (G-2): sc-17752. Western blot analysis of KAI 1 expression in Jurkat whole cell lysates.



KAI 1 (G-2): sc-17752. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human prostate tumor showing membrane staining.

SELECT PRODUCT CITATIONS

- Gellersen, B., et al. 2007. Expression of the metastasis suppressor KAI 1 in decidual cells at the human maternal-fetal interface. *Am. J. Pathol.* 170: 126-139.
- Li, M.Q., et al. 2011. CXCL12 controls over-invasion of trophoblasts via upregulating CD82 expression in DSCs at maternal-fetal interface of human early pregnancy in a paracrine manner. *Int. J. Clin. Exp. Pathol.* 4: 276-286.
- Hong, I.K., et al. 2012. Tetraspanin CD151 stimulates adhesion-dependent activation of Ras, Rac, and Cdc42 by facilitating molecular association between β1 integrins and small GTPases. *J. Biol. Chem.* 287: 32027-32039.
- Tsui, K.H., et al. 2013. Mechanisms by which interleukin-6 attenuates cell invasion and tumorigenesis in human bladder carcinoma cells. *Biomed. Res. Int.* 2013: 791212.
- Scarpino, S., et al. 2013. Papillary carcinoma of the thyroid: high expression of cox-2 and low expression of KAI-1/CD82 are associated with increased tumour invasiveness. *Thyroid* 23: 1127-1137.
- Markowska, J., et al. 2013. The expression of BRCA1, P53, KAI 1, and Nm23 in ovaries of BRCA1 mutation carriers after prophylactic adnexectomy. *Arch. Gynecol. Obstet.* 288: 839-844.
- Maloney, S.C., et al. 2013. Expression of the metastasis suppressor KAI 1 in uveal melanoma. *J. Ophthalmol.* 2013: 683963.
- Cho, M.K., et al. 2014. Overexpression of KAI 1 protein in diabetic skin tissues. *Arch. Plast. Surg.* 41: 248-252.
- Wang, G., et al. 2015. Clinical significance of KAI 1/CD82 protein expression in nasopharyngeal carcinoma. *Oncol. Lett.* 9: 1681-1686.

PROTOCOLS

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