

KAI 1 (H-173): sc-5540

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; Cd82 (mouse) mapping to 2 E1.

SOURCE

KAI 1 (H-173) is a rabbit polyclonal antibody raised against amino acids 95-267 of KAI 1 of human origin.

PRODUCT

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

Available as TransCruz reagent for ChIP application, sc-5540 X, 200 µg/0.1 ml.

APPLICATIONS

KAI 1 (H-173) is recommended for detection of KAI 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 siRNA (m): sc-35733, KAI 1 shRNA Plasmid (h): sc-35734-SH, KAI 1 shRNA Plasmid (m): sc-35733-SH, KAI 1 shRNA (h) Lentiviral Particles: sc-35734-V and KAI 1 shRNA (m) Lentiviral Particles: sc-35733-V.

KAI 1 (H-173) X TransCruz antibody is recommended for ChIP assays.

Molecular Weight of KAI 1: 46 kDa.

Positive Controls: KAI 1 (h): 293T Lysate: sc-171405, HL-60 whole cell lysate: sc-2209 or K-562 whole cell lysate: sc-2203.

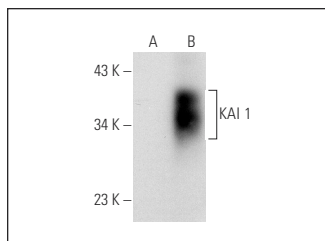
STORAGE

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

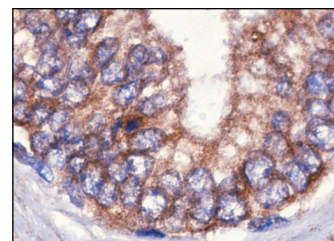
RESEARCH USE

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

DATA



KAI 1 (H-173): sc-5540. Western blot analysis of KAI 1 expression in non-transfected: sc-117752 (A) and human KAI 1 transfected: sc-171405 (B) 293T whole cell lysates.



KAI 1 (H-173): sc-5540. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human prostate tumor showing membrane localization.

SELECT PRODUCT CITATIONS

- Baek, S., et al. 2002. Exchange of N-CoR corepressor and Tip60 coactivator complexes links gene expression by NFκB and β-Amyloid precursor protein. *Cell* 110: 55-67.
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- 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.
- Malik, F.A., et al. 2009. Transcriptional and translational modulation of KAI 1 expression in ductal carcinoma of the breast and the prognostic significance. *Int. J. Mol. Med.* 23: 273-278.
- Malik, F.A., et al. 2009. Effect of expressional alteration of KAI 1 on breast cancer cell growth, adhesion, migration and invasion. *Cancer Genomics Proteomics* 6: 205-213.
- Li, M.Q., et al. 2010. The DSCs-expressed CD82 controls the invasiveness of trophoblast cells via integrinβ1/MAPK/MAPK3/1 signaling pathway in human first-trimester pregnancy. *Biol. Reprod.* 82: 968-979.
- Zhang, Q., et al. 2012. Expression of CD82 in human trophoblast and its role in trophoblast invasion. *PLoS ONE* 7: e38487.

PROTOCOLS

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

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Try **KAI 1 (G-2): sc-17752**, our highly recommended monoclonal alternative to KAI 1 (H-173).