

## KiSS-1 (C-20): sc-18134

### BACKGROUND

KiSS-1 is a 145 amino acid human protein that suppresses metastases of melanomas and breast carcinomas without affecting tumorigenicity. The human KiSS-1 gene maps to chromosome 1q32.1 and consists of four exons. Transcripts for human KiSS-1 are predominantly expressed in the brain and placenta. KiSS-1 protein contains a polyproline-rich domain (SH3 ligand) and a putative protein kinase C- $\alpha$  phosphorylation site. KiSS-1 may regulate events downstream of cell-matrix adhesion in mechanisms involving cytoskeletal reorganization. Expression of KiSS-1 reduces the level of NF $\kappa$ B p50/p65 binding to the MMP-9 promoter and correlates with diminished expression of the 92 kDa type IV collagenase (MMP-9). KiSS-1 displays agonist activity on the orphan G protein-coupled receptor GPR54.

### REFERENCES

1. Lee, J.H., et al. 1996. KiSS-1, a novel human malignant melanoma metastasis-suppressor gene. *J. Natl. Cancer Inst.* 88: 1731-1737.
2. Lee, J.H. and Welch, D.R. 1997. Suppression of metastasis in human breast carcinoma MDA-MB-435 cells after transfection with the metastasis suppressor gene, KiSS-1. *Cancer Res.* 57: 2384-2387.

### CHROMOSOMAL LOCATION

Genetic locus: KISS1 (human) mapping to 1q32.1; Kiss1 (mouse) mapping to 1 E4.

### SOURCE

KiSS-1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of KiSS-1 of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-18134 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

KiSS-1 (C-20) is recommended for detection of KiSS-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

KiSS-1 (C-20) is also recommended for detection of KiSS-1 in additional species, including bovine and porcine.

Suitable for use as control antibody for KiSS-1 siRNA (h): sc-37443, KiSS-1 siRNA (m): sc-146490, KiSS-1 shRNA Plasmid (h): sc-37443-SH, KiSS-1 shRNA Plasmid (m): sc-146490-SH, KiSS-1 shRNA (h) Lentiviral Particles: sc-37443-V and KiSS-1 shRNA (m) Lentiviral Particles: sc-146490-V.

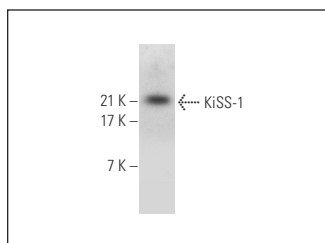
Molecular Weight of KiSS-1: 15 kDa.

Positive Controls: mouse testis extract: sc-2405.

### RESEARCH USE

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

### DATA



KiSS-1 (C-20): sc-18134. Western blot analysis of KiSS-1 expression in mouse testis tissue extract.

### SELECT PRODUCT CITATIONS

1. Prentice, L.M., et al. 2007. Kisspeptin and GPR54 immunoreactivity in a cohort of 518 patients defines favourable prognosis and clear cell subtype in ovarian carcinoma. *BMC Med.* 5: 33.
2. Mi, W.L., et al. 2009. The distribution of kisspeptin and its receptor GPR54 in rat dorsal root ganglion and up-regulation of its expression after CFA injection. *Brain Res. Bull.* 78: 254-260.
3. Kushiro, K., et al. 2012. Adipocytes promote B16BL6 melanomacell invasion and the epithelial-to-mesenchymal transition. *Cancer Microenviron.* 5: 73-82.
4. Liu, J., et al. 2014. CCR6 is a prognostic marker for overall survival in patients with colorectal cancer, and its overexpression enhances metastasis *in vivo*. *PLoS ONE* 9: e101137.

### STORAGE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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