

KiSS-1 (R-20): sc-18133

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 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 NFκB p50/p65 binding to the MMP-9 promoter and correlates with diminished expression of MMP-9 (also designated 92 kDa type IV collagenase or gelatinase B). KiSS-1 displays agonist activity on the orphan G protein-coupled receptor GPR54.

REFERENCES

- Lee, J. H., et al. 1996. KiSS-1, a novel human malignant melanoma metastasis-suppressor gene. *J. Natl. Cancer Inst.* 88: 1731-1737.
- Lee, J. H., et al. 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.
- West, A., et al. 1998. Chromosome localization and genomic structure of the KiSS-1 metastasis suppressor gene (KISS1). *Genomics* 54: 145-148.
- Muir, A.I., et al. 2001. AXOR12, a novel human G protein-coupled receptor, activated by the peptide KiSS-1. *J. Biol. Chem.* 276: 28969-28975.
- Yan, C., et al. 2001. KiSS-1 represses 92 kDa type IV collagenase expression by down-regulating NFκB binding to the promoter as a consequence of IκBα-induced block of p65/p50 nuclear translocation. *J. Biol. Chem.* 276: 1164-1172.
- Kotani, M., et al. 2001. The metastasis suppressor gene KiSS-1 encodes kisspeptins, the natural ligands of the orphan G protein-coupled receptor GPR54. *J. Biol. Chem.* 276: 34631-34636.
- Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 603286: World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: KISS1 (human) mapping to 1q32.1.

SOURCE

KiSS-1 (R-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KiSS-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.

Blocking peptide available for competition studies, sc-18133 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KiSS-1 (R-20) is recommended for detection of KiSS-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

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

Molecular Weight of KiSS-1: 15 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.

PROTOCOLS

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



Try **KiSS-1 (24-Q): sc-101246**, our highly recommended monoclonal alternative to KiSS-1 (R-20).