

KiSS-1 (FL-145): sc-15400

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- α 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 κ B 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

1. Lee, J.H., 1996. KiSS-1, a novel human malignant melanoma metastasis-suppressor gene. *J. Natl. Cancer Inst.* 88: 1731-1737.
2. 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.
3. West, A., et al. 1998. Chromosome localization and genomic structure of the KiSS-1 metastasis suppressor gene (KISS1). *Genomics* 54: 145-148.
4. 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.

CHROMOSOMAL LOCATION

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

SOURCE

KiSS-1 (FL-145) is a rabbit polyclonal antibody raised against amino acids 1-145 representing full length KiSS-1 of human origin.

PRODUCT

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

APPLICATIONS

KiSS-1 (FL-145) is recommended for detection of KiSS-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

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 goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Martin, T.A., et al. 2005. KiSS-1 expression in human breast cancer. *Clin. Exp. Metastasis* 22: 503-511.
2. Guan-Zhen, Y., et al. 2007. Reduced protein expression of metastasis-related genes (nm23, KISS1, KAI1 and p53) in lymph node and liver metastases of gastric cancer. *Int. J. Exp. Pathol.* 88: 175-183.
3. Yu, G.Z., et al. 2008. New insight into the key proteins and pathways involved in the metastasis of colorectal carcinoma. *Oncol. Rep.* 19: 1191-1204.
4. Jiffar, T., et al. 2011. KiSS1 mediates platinum sensitivity and metastasis suppression in head and neck squamous cell carcinoma. *Oncogene* 30: 3163-3173.
5. Pinto, F.M., et al. 2012. Characterization of the kisspeptin system in human spermatozoa. *Int. J. Androl.* 35: 63-73.
6. Cejudo Roman, A., et al. 2012. Analysis of the expression of neurokinin B, kisspeptin, and their cognate receptors NK3R and KISS1R in the human female genital tract. *Fertil. Steril.* 97: 1213-1219.
7. Zhu, H.J., et al. 2012. Impaired N-cadherin-mediated adhesion increases the risk of inducible ventricular arrhythmias in isolated rat hearts. *Sci. Res. Essays* 7: 2983-2991.

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.



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Satisfaction
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Try **KiSS-1 (24-Q): sc-101246**, our highly recommended monoclonal alternative to KiSS-1 (FL-145).