

KiSS-1 (24-Q): sc-101246

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., 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.
3. West, A., et al. 1998. Chromosome localization and genomic structure of the KiSS-1 metastasis suppressor gene (KiSS-1). *Genomics* 54: 145-148.

CHROMOSOMAL LOCATION

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

SOURCE

KiSS-1 (24-Q) is a mouse monoclonal antibody raised against a partial recombinant protein mapping within amino acids 46-145 of KiSS-1 of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

KiSS-1 (24-Q) 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), 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 KiSS-1 siRNA (h): sc-37443, KiSS-1 shRNA Plasmid (h): sc-37443-SH and KiSS-1 shRNA (h) Lentiviral Particles: sc-37443-V.

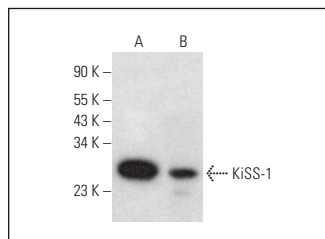
Molecular Weight of KiSS-1: 15 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or human pancreas extract: sc-363770.

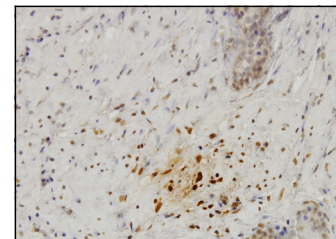
STORAGE

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

DATA



KiSS-1 (24-Q): sc-101246. Western blot analysis of KiSS-1 expression in Jurkat whole cell lysate (A) and human pancreas tissue extract (B).



KiSS-1 (24-Q): sc-101246. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human prostate tissue showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Sun, Y.B. and Xu, S. 2013. Expression of KiSS-1 and KiSS-1R (GPR54) may be used as favorable prognostic markers for patients with non-small cell lung cancer. *Int. J. Oncol.* 43: 521-530.
2. Ji, K., et al. 2014. Implication of metastasis suppressor gene, KiSS-1 and its receptor KiSS-1R in colorectal cancer. *BMC Cancer* 14: 723.
3. Singh, R., et al. 2016. Evaluation of KiSS-1 as a prognostic biomarker in North Indian breast cancer cases. *Asian Pac. J. Cancer Prev.* 17: 1789-1795.
4. Kolioulis, I., et al. 2017. Immunohistochemical expression pattern of metastasis suppressor KiSS-1 protein in adenomyosis lesions and normal endometrium. *Eur. J. Obstet. Gynecol. Reprod. Biol.* 210: 64-68.
5. Yan, C., et al. 2018. Smad ubiquitination regulatory factor 1 (Smurf1) promotes thyroid cancer cell proliferation and migration via ubiquitin-dependent degradation of kisspeptin-1. *Cell. Physiol. Biochem.* 49: 2047-2059.
6. Sun, W., et al. 2019. MicroRNA-3648 is upregulated to suppress TCF21, resulting in promotion of invasion and metastasis of human bladder cancer. *Mol. Ther. Nucleic Acids* 16: 519-530.
7. Hou, Y., et al. 2020. PHF20L1 as a H3K27me2 reader coordinates with transcriptional repressors to promote breast tumorigenesis. *Sci. Adv.* 6: eaaz0356.
8. Chang, B., et al. 2021. Leptin and inflammatory factors play a synergistic role in the regulation of reproduction in male mice through hypothalamic kisspeptin-mediated energy balance. *Reprod. Biol. Endocrinol.* 19: 12.
9. Santos, B.R., et al. 2022. Maternal hypothyroidism reduces the expression of the kisspeptin/Kiss1r system in the maternal-fetal interface of rats. *Reprod. Biol.* 22: 100615.

RESEARCH USE

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