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KISS1 Antibody (C-Term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21473b

Product Information

Application	WB, IF, E
Primary Accession	Q15726
Reactivity	Human
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB53799
Calculated MW	14705

Additional Information

Gene ID	3814
Other Names	Metastasis-suppressor KiSS-1, Kisspeptin-1, Metastin, Kisspeptin-54, Kisspeptin-14, Kisspeptin-13, Kisspeptin-10, KISS1
Target/Specificity	This KISS1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 115-145 amino acids from the human region of human KISS1.
Dilution	WB~~1:2000 IF~~1:25 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	KISS1 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KISS1
Function	Kisspeptins are ligands for the G-protein coupled receptor KISS1R/GPR54 (PubMed:11385580, PubMed:11457843, PubMed:11527393, PubMed:12879005, PubMed:15020672, PubMed:15596153). The hypothalamic KISS1/KISS1R signaling system plays a central role in the regulation of the hypothalamic-pituitary-gonadal reproductive axis by modulating the secretion

	of gonadotropin-releasing hormone (GnRH) from GnRH neurons (PubMed:15219839, PubMed:15598687, PubMed:22335740). In these neurons, kisspeptin binding to its receptor activates G(q)-dependent signaling, leading to phospholipase C (PLC) activation, and hydrolysis of phosphatidylinositol 4,5-bisphosphate (PIP2) (PubMed:15598687, PubMed:22335740). The subsequent rise in intracellular calcium levels results in the inhibition of inward rectifier potassium channels and activation of TRPC-like cation channels, leading to GnRH neurons depolarization and stimulation (By similarity). In addition to this pathway, kisspeptin also triggers G(q)-independent signaling via beta- arrestin, leading to MAPK cascade activation and ERK1/ERK2 phosphorylation (PubMed:25147978). Kisspeptins are also involved in the regulation of other processes including cell growth, cell proliferation and cell migration (PubMed:11385580, PubMed:11457843, PubMed:11527393, PubMed:12879005, PubMed:15020672, PubMed:15596153).
Cellular Location	Secreted.
Tissue Location	High expression in placenta (PubMed:8944003, PubMed:11385580, PubMed:11457843, PubMed:12574233). Expression levels increased in both early placentas and molar pregnancies and are reduced in choriocarcinoma cells. In first trimester trophoblasts is expressed at higher levels than at term of gestation, but only expressed in the villous trophoblast (PubMed:15020672). Also expressed in testis, pancreas, liver, small intestine.

Background

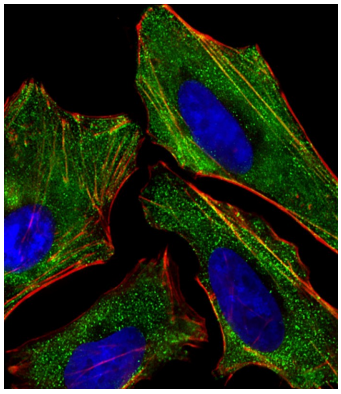
Metastasis suppressor protein in malignant melanomas and in some breast cancers. May regulate events downstream of cell- matrix adhesion, perhaps involving cytoskeletal reorganization. Generates a C-terminally amidated peptide, metastin which functions as the endogenous ligand of the G-protein coupled receptor GPR54. Activation of the receptor inhibits cell proliferation and cell migration, key characteristics of tumor metastasis. Kp-10 is a decapeptide derived from the primary translation product, isolated in conditioned medium of first trimester trophoblast. Kp-10, but not other kisspeptins, increased intracellular Ca(2+) levels in isolated first trimester trophoblasts. Kp-10 is a paracrine/endocrine regulator in fine- tuning trophoblast invasion generated by the trophoblast itself. The receptor is also essential for normal gonadotropin-released hormone physiology and for puberty. The hypothalamic KiSS1/GPR54 system is a pivotal factor in central regulation of the gonadotropic axis at puberty and in adulthood.

References

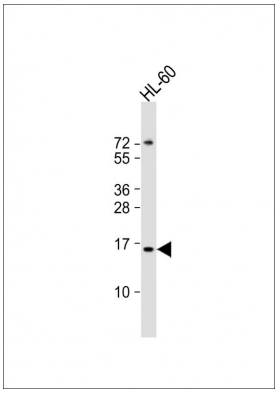
Lee J.-H.,et al.J. Natl. Cancer Inst. 88:1731-1737(1996).
Lee J.-H.,et al.J. Natl. Cancer Inst. 89:1549-1549(1997).
West A.,et al.Genomics 54:145-148(1998).
Qiao C.,et al.Submitted (JUN-2002) to the EMBL/GenBank/DDBJ databases.
Wan D.,et al.Proc. Natl. Acad. Sci. U.S.A. 101:15724-15729(2004).

Images

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling KISS1 with AP21473b at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (NK179883) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm staining



on HeLa cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (PD18466410) at 1/100 dilution (red).The nuclear counter stain is DAPI (blue).



Anti-KISS1 Antibody (C-Term)at 1:2000 dilution + HL-60 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 15 kDa Blocking/Dilution buffer: 5% NFDM/TBST.