10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KISS1R Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20305c

Product Information

Application	WB, E
Primary Accession	Q969F8
Reactivity	Human
Predicted	Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB40407
Calculated MW	42586
Antigen Region	235-263

Additional Information

Gene ID	84634
Other Names	KiSS-1 receptor, KiSS-1R, G-protein coupled receptor 54, G-protein coupled receptor OT7T175, hOT7T175, Hypogonadotropin-1, Kisspeptins receptor, Metastin receptor, KISS1R, AXOR12, GPR54
Target/Specificity	This KISS1R antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 235-263 amino acids from the Central region of human KISS1R.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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	KISS1R Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KISS1R
Synonyms	AXOR12 {ECO:0000303|PubMed:11387329}, GP

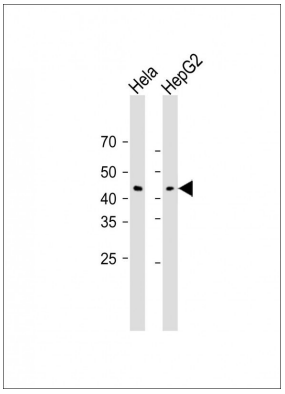
Function	Receptor for kisspeptins (kisspeptin-10, kisspeptin-13, kisspeptin-14 and metastin/kisspeptin-54) (PubMed:11457843, PubMed:11527393, PubMed:15020672, PubMed:15596153). The hypothalamic KISS1/KISS1R signaling system plays a central role in the regulation of the hypothalamic-pituitary-gonadal reproductive axis by modulating the secretion of gonadotropin-releasing hormone (GnRH) from GnRH neurons (PubMed:12944565, PubMed:14573733, PubMed:15598687, PubMed:17164310, PubMed:18272894). 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:14573733, PubMed:15598687, PubMed:39151001). 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). Furthermore, activation of KISS1R by kisspeptin-10 recruits phosphatase DUSP18 and SRC to the KISS1R C-terminus through a G(q)-dependent signaling pathway, leading to DUSP18-mediated dephosphorylation of SRC (PubMed:38346942). In bone tissue, this results in down-regulation of osteoclast differentiation and activity, and consequently suppression of bone resorption (By similarity). KISS1R is also involved in the regulation of other processes, including cell proliferation and cell migration (PubMed:11457843, PubMed:11527393, PubMed:15020672, PubMed:15596153, PubMed:38512807).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Expressed in the pancreas, placenta and spinal cord, with lower-level of expression in peripheral blood leukocytes, kidney, lung, fetal liver, stomach, small intestine, testes, spleen, thymus, adrenal glands and lymph nodes. In the adult brain, expressed in the superior frontal gyrus, putamen, caudate nucleus, cingulate gyrus, nucleus accumbens, hippocampus, pons and amygdala, as well as the hypothalamus and pituitary. Expression levels are higher in early (7-9 weeks) than term placentas. Expression levels were increased in both early placentas and molar pregnancies and were reduced in choriocarcinoma cells. Expressed at higher levels in first trimester trophoblasts than at term of gestation. Also found in the extravillous trophoblast suggesting endocrine/paracrine activation mechanism

Background

Receptor for metastin (kisspeptin-54 or kp-54), a C-terminally amidated peptide of KiSS1. KiSS1 is a metastasis suppressor protein that suppresses metastases in malignant melanomas and in some breast carcinomas without affecting tumorigenicity. The metastasis suppressor properties may be mediated in part by cell cycle arrest and induction of apoptosis in malignant cells. The receptor is essential for normal gonadotropin-released hormone physiology and for puberty. The hypothalamic KiSS1/KISS1R system is a pivotal factor in central regulation of the gonadotropic axis at puberty and in adulthood. The receptor is also probably involved in the regulation and fine-tuning of trophoblast invasion generated by the trophoblast itself. Analysis of the transduction pathways activated by the receptor identifies coupling to phospholipase C and intracellular calcium release through pertussis toxin-insensitive G(q) proteins.

Images

All lanes: Anti-KISS1R Antibody (Center) at 1:500 dilution Lane 1: Hela whole cell lysate Lane 2: HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat



Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 43 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.