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KISS1R / GPR54 Antibody (Cytoplasmic Domain)

Rabbit Polyclonal Antibody
Catalog # ALS10470

Specification

KISS1R / GPR54 Antibody (Cytoplasmic Domain) - Product Information

Application	**IHC-P**
Primary Accession	Q969F8
Reactivity	**Human, Pig, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**43kDa KDa**
Dilution	**IHC-P~~N/A**

KISS1R / GPR54 Antibody (Cytoplasmic Domain) - 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
Human KISS1R / GPR54. BLAST analysis of the peptide immunogen showed no homology with other human proteins, except MYBBP1A (56%).

Reconstitution & Storage
Long term: -70°C; Short term: +4°C

Precautions
KISS1R / GPR54 Antibody (Cytoplasmic Domain) is for research use only and not for use in diagnostic or therapeutic procedures.

KISS1R / GPR54 Antibody (Cytoplasmic Domain) - 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:<a

href="http://www.uniprot.org/citations/12944565" target="_blank">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

Volume
50 µl

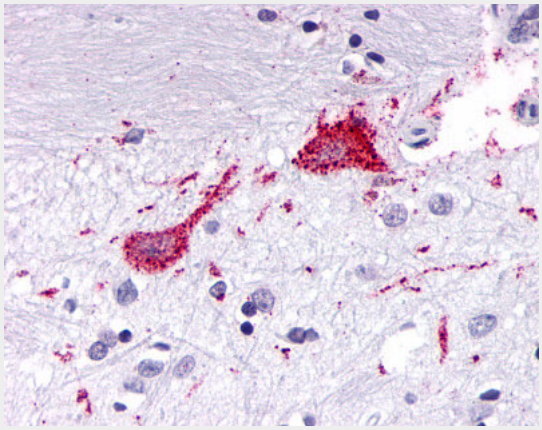
KISS1R / GPR54 Antibody (Cytoplasmic Domain) - Protocols

Provided below are standard protocols that you may find useful for product applications.

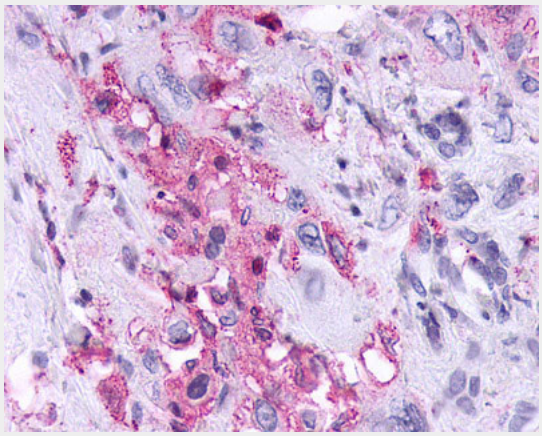
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

- Flow Cytomety
- Cell Culture

KISS1R / GPR54 Antibody (Cytoplasmic Domain) - Images



Anti-KISS1R / GPR54 antibody ALS10470 IHC of human brain, neurons and glia.



Anti-KISS1R / GPR54 antibody IHC of human Pancreas, Carcinoma.

KISS1R / GPR54 Antibody (Cytoplasmic Domain) - 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.

KISS1R / GPR54 Antibody (Cytoplasmic Domain) - References

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Muir A.I.,et al.J. Biol. Chem. 276:28969-28975(2001).
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