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Anti-FSH-Receptor (Ovarian Marker) Antibody

Mouse Monoclonal Antibody
Catalog # AH13247

Product Information

Application	IHC-P, IF, FC
Primary Accession	P23945
Other Accession	1428
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1
Clone Names	FSHR/1400
Calculated MW	78238

Additional Information

Gene ID	2492
Other Names	Follicle-stimulating hormone receptor; Follitropin receptor; FSH receptor; FSH-R; FSHRO; LGR1; ODG1; ovarian dysgenesis 1
Application Note	Flow Cytometry (0.5-1ug/million cells); Immunofluorescence (1-2ug/ml); ,Immunohistology (Formalin-fixed) (1-2ug/ml for 30 minutes at RT),(Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, or 10mM Citrate buffer, pH6.0, for 10-20 min followed by cooling at RT for 20 minutes),Optimal dilution for a specific application should be determined.
Format	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Anti-FSH-Receptor (Ovarian Marker) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FSHR
Synonyms	LGR1
Function	G protein-coupled receptor for follitropin, the follicle- stimulating hormone (PubMed:11847099, PubMed:24058690, PubMed:24692546). Mediates FSH

signaling through cAMP/protein kinase A (PKA) and phosphatidylinositol-3 kinase (PI3K)/protein kinase B (AKT) pathways to regulate ovarian follicular development and steroidogenesis (PubMed:24058690). Has diverse extragonadal functions: signals via a GNAI2-coupled FSHR on osteoclasts and their precursors, resulting in activation of MEK/ERK, NF-kappa-B, and AKT pathways and thus increases osteoclastogenesis and bone resorption (By similarity). Regulates glucose-stimulated insulin secretion in pancreatic beta-cells in a bell curve manner, with moderate FSH levels promoting insulin secretion via Galphas/cAMP/PKA pathways while high FSH levels inhibit this effect through Galphai coupling (By similarity). In adipose tissue, inhibits thermogenesis by suppressing UCP1 expression and promotes lipogenesis via CREB/PPARgamma pathways (By similarity). Also affects hepatic cholesterol metabolism by increasing serum total and low-density- lipoprotein cholesterol (LDL-C) by inhibiting the expression of LDL receptor (LDLR) (PubMed:26583582).

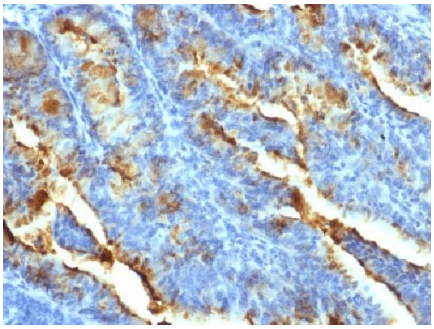
Cellular Location Cell membrane; Multi-pass membrane protein

Tissue Location Sertoli cells and ovarian granulosa cells.

Background

Follicle-stimulating hormone receptor (FSHR) is a 695 amino acid G protein coupled receptor. FSH binds to the receptor in a hand-clasp fashion via its α and β subunits. While the α subunit of FSH is involved in the binding of FSH to the receptor, the β subunit stabilizes this interaction. Linkage studies suggest that a missense mutation in the FSHR gene can cause reduced FSH binding affinity and lead to a condition known as hypergonadotropic ovarian dysgenesis (ODG). In males however, this mutation does not appear to have a detrimental affect on fertility. It is believed that a mutation in the FSHR gene is also associated with ovarian hyperstimulation syndrome; a condition characterized by the presence of multiple serous and hemorrhagic follicular cysts lined by luteinized cells.

Images



Formalin-fixed, paraffin-embedded human Uterine Carcinoma stained with FSH Receptor Monoclonal Antibody (FSHR/1400).

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