

# GnRH Receptor / LHRH Receptor Monoclonal Mouse Antibody (A9E4)

## Product Description

Recognizes an epitope on the extracellular domain of gonadotropin releasing hormone (GnRH) receptor or luteinizing hormone receptor (LHCGR). Lutropin (also designated luteinizing hormone) plays a role in spermatogenesis and ovulation by stimulating the testes and ovaries to produce steroids. Gonadotropin (also designated choriogonadotropin) production in the placenta maintains estrogen and progesterone levels during the first trimester of pregnancy. Ovaries and testes abundantly express luteinizing hormone/choriogonadotropin receptor. GnRH receptor contains seven hydrophobic transmembrane domains connected by hydrophilic extracellular and intracellular loops characteristic of G-protein coupled receptors. GnRH stimulates the gonadotrophs of the anterior pituitary to secrete luteinizing hormone (LH) as well as follicle-stimulating hormone (FSH). GnRH influences the protective effect of pregnancy and Gonadotropin against breast cancer. The expression of GnRH on breast carcinoma correlates in part to the degree of tumor differentiation. GnRH-positive breast tumors occur more frequently in tumors with greater cell differentiation in premenopausal women. GnRH is present in luteal and granulosa cells as well as in ovarian cell membrane preparations.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

**Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order.

**Catalog number key for antibody number 0309, Anti-GnRH Receptor (A9E4)**

## Product attributes

Antibody number	#0309
Antibody reactivity (target)	GnRH Receptor, LHRH Receptor
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	A9E4
Isotype	IgG1, kappa
Molecular weight	54-60 kDa
Synonyms	GnRH receptor; GnRH-R; GNRHR1; gonadotropin-releasing hormone (type 1) receptor 1; GRHR; HH7; leutinizing-releasing hormone receptor; LHRHR; LRHR; luliberin receptor; luteinizing hormone releasing hormone receptor; Type I GnRH receptor
Human gene symbol	GNRHR, LHCGR
Entrez gene ID	2798 (GNRHR) and 3973 (LHCGR)
SwissProt	P30968 (GNRHR) & P22888 (LHCGR)
Unigene	407587 (GNRHR) 468490 (LHCGR)
Immunogen	A synthetic peptide aa 1-29 (MANASPEONQHCSAINNSIPLMQGNLPY) from the N-terminal of human GnRH receptor.
Antibody target cellular localization	Plasma membrane
Species reactivity	Human
Expected antibody applications	IHC (FFPE) (published for clone), IF (published for clone)
Antibody application notes	Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody. Immunofluorescence: 1-2 ug/mL, Flow Cytometry 0.5-1 ug/million cells/0.1 mL. Predicted to react with pig or rabbit; others not known. Optimal dilution for a specific application should be determined by user
Positive control	T47D cells. Pituitary gland, ovarian or breast cancers.
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 °C. Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Antibody research areas	Cancer, Endocrinology
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	<a href="#">CF®405S Features</a>
BNC88	CF®488A	490/515	488	GFP, FITC	<a href="#">CF®488A Features</a>
BNC68	CF®568	562/583	532, 561	RFP, TRITC	<a href="#">CF®568 Features</a>
BNC94	CF®594	593/614	561	Texas Red®	<a href="#">CF®594 Features</a>
BNC40	CF®640R	642/662	633-640	Cy®5	<a href="#">CF®640R Features</a>
BNC47	CF®647	650/665	633-640	Cy®5	<a href="#">CF®647 Features</a>
BNC74	CF®740	742/767	633-685	775/50	<a href="#">CF®740 Features</a>
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

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## References

Note: References for this clone sold by other suppliers may be listed for expected applications.

- Horm Res Paediatr (2010) 73:312-319. (IHC, FFPE)
- BMC Cancer (2011) 11: 476. (IF, FFPE)