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Oxytocin R Rabbit pAb

Catalog # AP96910

Product Information

Application	WB
Primary Accession	P97926
Other Accession	P97926
Reactivity	Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	42805
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse Oxytocin R
Epitope Specificity	301-400/388
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the G-protein coupled receptor 1 family. Vasopressin/oxytocin receptor subfamily.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	he protein encoded by this gene belongs to the G-protein coupled receptor family and acts as a receptor for oxytocin. Its activity is mediated by G proteins which activate a phosphatidylinositol-calcium second messenger system. The oxytocin-oxytocin receptor system plays an important role in the uterus during parturition. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	18430
Other Names	OT-R; OTR; OTR1; OXYR_BOVIN; OXTR; OXYR_HUMAN; OXYR_MOUSE; OXYR_PIG; OXYR_RAT; OXYR_SHEEP; oxytocin receptor
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	Oxtr {ECO:0000303|PubMed:16249339, ECO:0000312|MGI:MGI:109147}
Function	G protein-coupled receptor for oxytocin (OXT), a neuropeptide hormone

released by the posterior pituitary gland that plays a key role in social behavior and other biological processes, such as milk ejection (PubMed:19369205, PubMed:25303526, PubMed:25874674, PubMed:27641503, PubMed:31843930, PubMed:38267576, PubMed:40934325). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of downstream effectors, such as phospholipase C (By similarity). OXTR is mainly coupled to G(q) G proteins and mediates production of diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) second messengers that modulate the activity of phosphatidylinositol 3-kinase and promote the release of Ca(2+) ions from intracellular stores, respectively (By similarity). In presence of high levels of oxytocin, also coupled to G(i) G proteins, mediating inhibition of adenylate cyclase activity (By similarity). Central release of oxytocin plays essential roles in social behavior, such as maternal care, social cognition and affiliative behaviors, triggering signaling that modulates neural circuits by altering ion channel activity, changing intrinsic neuronal properties and modifying synaptic transmission (both excitatory and inhibitory) (PubMed:25303526, PubMed:25874674, PubMed:27641503, PubMed:38267576, PubMed:40934325). Peripheral release of oxytocin (secretion into the bloodstream) promotes various processes, such as parturition, lactation or osteoblast differentiation (PubMed:16249339, PubMed:19369205, PubMed:31843930). OXTR-mediated signaling promotes milk ejection by triggering and strengthening contraction of the smooth muscle of mammary gland (PubMed:16249339).

Cellular Location

Cell membrane {ECO:0000250|UniProtKB:P30559}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P30559}

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