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Oxytocin Receptor Antibody

Rabbit mAb
Catalog # AP92241

Product Information

Application	WB
Primary Accession	P30559
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	OT R; OTR; OTR1; OXT R; Oxtr;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	42772

Additional Information

Dilution	WB 1:500~1:2000
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Oxytocin Receptor
Description	Receptor for oxytocin. The activity of this receptor is mediated by G proteins which activate a phosphatidylinositol-calcium second messenger system.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

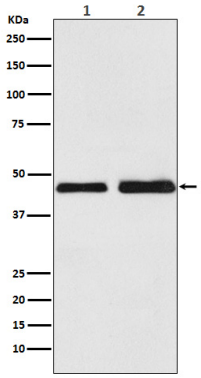
Protein Information

Name	OXTR {ECO:0000303|PubMed:20647384, ECO:0000312|HGNC:HGNC:8529}
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:11923477, PubMed:22069312, PubMed:32832646, PubMed:35104164, PubMed:35241813, PubMed:35851571). 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 (PubMed:22069312, PubMed:32832646, PubMed:35104164, PubMed:35241813, PubMed:35851571). 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 (PubMed:11923477, PubMed:22069312, PubMed:32832646, PubMed:35104164, PubMed:35241813, PubMed:35851571). In presence of high levels of oxytocin, also coupled to G(i) G proteins, mediating inhibition of adenylate cyclase activity (PubMed:22069312, PubMed:35241813,

PubMed:35851571). 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:19934046, PubMed:20647384, PubMed:21896752, PubMed:22123970, PubMed:24367110). Peripheral release of oxytocin (secretion into the bloodstream) promotes various processes, such as parturition, lactation or osteoblast differentiation (PubMed:6278592). OXTR-mediated signaling promotes milk ejection by triggering and strengthening contraction of the smooth muscle of mammary gland (By similarity).

Cellular Location Cell membrane; Multi-pass membrane protein

Images



Western blot analysis of Oxytocin Receptor expression in (1) Jurkat cell lysate; (2) Mouse spleen lysate.

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