

Oxytocin-R (A-16): sc-34078

BACKGROUND

Oxytocin (OXT) is a pituitary hormone that has long been associated with uterine contraction during parturition and with milk ejection during nursing. Studies have suggested that oxytocin is also a neurotransmitter with reproductively important effects. The receptor for Oxytocin (OTR) is an integral membrane protein that is a member of the G protein coupled receptor family. Uterine and cervical Oxytocin receptors are significantly up-regulated during gestation, via both endocrine and mechanical signals, suggesting that Oxytocin receptors may be involved in parturition. Inhibition of Oxytocin receptor synthesis by IFN- τ and IFN- α may be a mechanism for Oxytocin receptor suppression during early pregnancy.

REFERENCES

1. Kimura, T., et al. 1992. Structure and expression of a human Oxytocin receptor. *Nature* 356: 526-529.
2. Rozen, F., et al. 1995. Structure, characterization, and expression of the rat Oxytocin receptor gene. *Proc. Natl Acad. Sci. USA* 92: 200-204.
3. Wathes, D.C. and Lamming, G.E. 1995. The Oxytocin receptor, luteolysis and the maintenance of pregnancy. *J. Reprod. Fertil. Suppl.* 49: 53-67.
4. Kimura, T., et al. 1996. Expression of Oxytocin receptor in human pregnant myometrium. *Endocrinology* 137: 780-785.
5. Maggi, M., et al. 1996. Interferon- α downregulates expression of the Oxytocin receptor in cultured human myometrial cells. *Am. J. Physiol.* 271: E840-E846.
6. Insel, T.R., et al. 1997. Central oxytocin and reproductive behaviors. *Rev. Reprod.* 2: 28-37.
7. Ou, C.W., et al. 1998. Increased expression of the rat myometrial Oxytocin receptor messenger ribonucleic acid during labor requires both mechanical and hormonal signals. *Biol. Reprod.* 59: 1055-1061.

CHROMOSOMAL LOCATION

Genetic locus: OXTR (human) mapping to 3p25.3; Oxt (mouse) mapping to 6 E3.

SOURCE

Oxytocin-R (A-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of Oxytocin-R of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-34078 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Oxytocin-R (A-16) is recommended for detection of Oxytocin-R of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Oxytocin-R siRNA (h): sc-40154, Oxytocin-R siRNA (m): sc-40155, Oxytocin-R shRNA Plasmid (h): sc-40154-SH, Oxytocin-R shRNA Plasmid (m): sc-40155-SH, Oxytocin-R shRNA (h) Lentiviral Particles: sc-40154-V and Oxytocin-R shRNA (m) Lentiviral Particles: sc-40155-V.

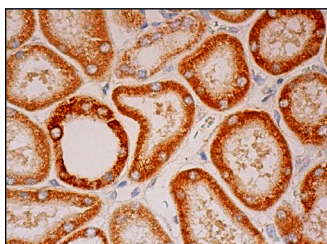
Molecular Weight of Oxytocin-R: 66 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, MCF7 whole cell lysate: sc-2206 or HeLa whole cell lysate sc: 2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Oxytocin-R (A-16): sc-34078. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.