

Oxytocin

Cat.No. 408 004; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µl antiserum, lyophilized. For reconstitution add 100 µl H ₂ O, then aliquot and store at -20°C until use.
Applications	WB: not tested yet IP: not tested yet ICC: not tested yet IHC: 1 : 500 IHC-P/FFPE: 1 : 500 up to 1 : 750
Immunogen	Synthetic peptide corresponding to AA 20 to 28 from mouse Oxytocin-neurophysin1 (UniProt Id: P35454)
Reactivity	Reacts with: mouse (P35454), rat (P01179). Other species not tested yet.
Specificity	The antibody recognizes Oxytocin. It may crossreact with the unprocessed precursor protein.

TO BE USED IN VITRO / FOR RESEARCH ONLY NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Oxytocin is a peptide hormone which is synthesized as an inactive precursor in nerve cell bodies in the supraoptic nucleus and paraventricular nucleus of the hypothalamus. The precursor protein is progressively hydrolyzed to produce oxytocin and its carrier protein neurophysin I. Together with neurophysin I, it is packaged into neurosecretory vesicles and transported axonally to the nerve endings in the neurohypophysis, where it is either stored or secreted into the bloodstream.

Oxytocin is also produced by some neurons of the hypothalamus that project to other parts of the brain and to the spinal cord.

Oxytocin is best known for roles in female reproduction as its release causes smooth muscle contraction during parturition and lactation. It is also involved in cognition, tolerance, adaptation, and complex sexual and maternal behavior.

Oxytocin is used as a medication to facilitate childbirth.

Selected General References

Oxytocin and vasopressin: linking pituitary neuropeptides and their receptors to social neurocircuits.
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Neuromodulation by oxytocin and vasopressin in the central nervous system as a basis for their rapid behavioral effects.
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Oxytocin modulates female sociosexual behavior through a specific class of prefrontal cortical interneurons.
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Cell (2014) 159(2): 295-305.

Oxytocin: the great facilitator of life.
Lee HJ, Macbeth AH, Pagani JH, Young WS
Progress in neurobiology (2009) 88(2): 127-51.