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# Recombinant Oxytocin

National Cancer Institute

## Source

National Cancer Institute. *Recombinant Oxytocin*. NCI Thesaurus. Code C724.

A synthetic cyclic peptide form of the naturally occurring posterior pituitary hormone oxytocin. Oxytocin binds to oxytocin receptors in the uterine myometrium, which triggers the G-protein coupled receptor signal transduction cascade that causes increased intracellular calcium concentrations. Increased calcium concentration levels activate myosin light chain kinase which, in turn, induces the formation of the contractile protein actomyosin. This stimulates uterine smooth muscle contractions. This agent also stimulates smooth muscles in the mammary glands, thereby causing lactation.