Anti-Oxytocin-neurophysin 1 / OXT Antibody ER64173

Product Type: Species reactivity: Applications: Molecular Wt:	Rabbit polyclonal IgG, primary antibodies Mouse, Rat WB, IHC-P Predicted band size: 13 kDa
Description:	This gene encodes a precursor protein that is processed to produce oxytocin and neurophysin I. Oxytocin is a posterior pituitary hormone which is synthesized as an inactive precursor in the hypothalamus along with its carrier protein neurophysin I. Together with neurophysin, 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. The precursor seems to be activated while it is being transported along the axon to the posterior pituitary. This hormone contracts smooth muscle during parturition and lactation. It is also involved in cognition, tolerance, adaptation and complex sexual and maternal behaviour, as well as in the regulation of water excretion and cardiovascular functions.
Immunogen:	Recombinant protein within human OXT aa 1-125.
Positive control:	Mouse pituitary tissue lysates, mouse pituitary tissue, rat pituitary tissue.
Subcellular location:	Secreted.
Database links:	SwissProt: P35454 Mouse Entrez Gene: 25504 Rat
Recommended Dilutions: WB IHC-P	1:2,000 1:8,000
Storage Buffer:	PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.
Storage Instruction:	Store at +4 $^\circ\!{\rm C}$ after thawing. Aliquot store at -20 $^\circ\!{\rm C}$. Avoid repeated freeze / thaw cycles.
Purity:	Immunogen affinity purified.

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

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Images

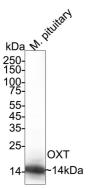


Fig1: Western blot analysis of Oxytocin-neurophysin 1 / OXT on mouse pituitary tissue lysates with Rabbit anti-Oxytocin-neurophysin 1 / OXT antibody (ER64173) at 1/2,000 dilution.

Lysates/proteins at 40 µg/Lane.

Predicted band size: 13 kDa Observed band size: 14 kDa

Exposure time: 3 seconds; ECL: K1801; 4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ER64173) at 1/2,000 dilution was used in 5% NFDM/TBST at 4° C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Fig2: Immunohistochemical analysis of paraffin-embedded mouse pituitary tissue with Rabbit anti-Oxytocin-neurophysin 1 / OXT antibody (ER64173) at 1/8,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (ER64173) at 1/8,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

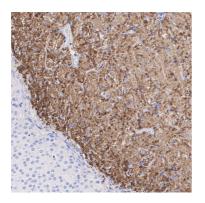


Fig3: Immunohistochemical analysis of paraffin-embedded rat pituitary tissue with Rabbit anti-Oxytocin-neurophysin 1 / OXT antibody (ER64173) at 1/8,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (ER64173) at 1/8,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

- 1. De Leon D et al. Methylation of OXT and OXTR genes, central oxytocin, and social behavior in female macaques. Horm Behav. 2020 Nov
- 2. Khazaal NM et al. The relationship between OXT gene polymorphisms and reproductive hormones in pregnant and lactating Awassi Ewes. Mol Biol Rep. 2023 Oct

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cetl=Immunofluorescence (Cetl) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation