Synaptic Systems

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Orexin A

Cat.No. 389 004; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µl antiserum, lyophilized. For reconstitution add 100 µl H_2O, 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
Immunogen	Synthetic peptide corresponding to AA 46 to 65 from mouse Orexin (UniProt Id: O55241)
Reactivity	Reacts with: human, rat, mouse (O55241). Other species not tested yet.
Specificity	Recognizes Orexin A with only minor cross-reactivity to the unprocessed precursor protein. Does not cross-react to Orexin B. (K.O. verified)

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

Orexins, also referred to as **Hypocretins**, are produced by specialized neurons in the lateral hypothalamus, which project to many different regions of the brain. Orexin A (33 amino acids) and Orexin B (28 amino acids) are both produced from a single pre-pro-orexin polypeptide by a cascade of enzymatic reactions. They operate via binding to two closely related G protein-coupled receptors called Orexin receptor 1 and 2 (OxR 1 and OxR 2). OxR 1 is selective for Orexin A whereas OxR 2 binds both peptides with similar affinity.
The orexin system is conserved in mammals, and plays a central role in regulating feeding, sleep/wake cycles, arousal, energy expenditure, reward seeking, cognition, and stress responses. Defects in orexin signaling are involved in diet-induced obesity, diabetes, narcolepsy, panic anxiety disorder, depression, and addiction.

Selected General References

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