

A Quality Proven Orexin A Antibody for Neuroscience Research

In 1998, two research groups independently discovered Hypocretin ([de Lecea *et al*](#)) and Orexins ([Sakurai *et al*](#)) that are essentially the same neuropeptides ([reviewed in Peyron & Kilduff, 2017](#)). Hypocretin producing cell bodies are exclusively located in hypothalamus with extensive axonal projections within the central nervous system. The receptors for neuropeptides Orexin A and Orexin B (also known as hypocretin 1 and hypocretin 2, respectively) are G protein coupled receptors. The neuropeptides have been extensively studied in relation to sleep/wake cycle regulation linking to sleep disorder narcolepsy. However, the Orexin/Hypocretin system also plays important roles in several other physiological processes like feeding, addiction, reward and motivation, anxiety and depression, cardiovascular regulation, pain, migraine and neuroendocrine

Biosensis Rabbit antibody to Orexin A (14-33): Catalog No# [R-104-100](#) is an antiserum against a synthetic peptide CRLYELLHGAGNHAAGILTL specific to bovine Orexin A.

Specificity

Specificity of the antiserum is tested on rat brain. Based on sequence similarity it is expected to cross-react with mouse, human and numerous other species.

Validated by Experts and Published by Leading Laboratories

This is a superb antiserum for immunohistochemistry on Orexin A containing neurons exhibiting intense labelling of neurons with very low background.

1. Kruger J.L. et al (2010) Cellular location and major terminal networks of the orexinergic system in the brains of five microchiropteran species. *J Chem Neuroanat.* [2010 Nov;40\(3\):256-62.](#)
2. Gaykema R.P. et al (2009) Lipopolysaccharide challenge-induced suppression of Fos in hypothalamic orexin neurons: their potential role in sickness behavior. *Brain Behav Immun.* [2009 Oct;23\(7\):926-30.](#)
3. Lee H.S. et al (2005) Retrograde study of hypocretin-1 (orexin-A) projections to subdivisions of the dorsal raphe nucleus in the rat. *Brain Res.* [2005 Oct 12;1059\(1\):35-45.](#)
4. Yao S.T. et al (2005) Water deprivation increases the expression of neuronal nitric oxide synthase (nNOS) but not orexin-A in the lateral hypothalamic area of the rat. *J Comp Neurol.* [2005 Sep 19;490\(2\):180-93.](#)

Other Orexin-Related Research Reagents from Biosensis

Target	Host	Purity	Reactivity	Applications	Clone	Cat #
Orexin A (1-13)	Chicken	AP	Hu, Ms, Rat	ELISA		C-1531-100
Orexin B (1-14)	Chicken	AP	Hu, Ms, Rat	ELISA		C-1532-100
Orexin Receptor Type 1 (327-342)	Rabbit	AP	Hu, Rat	WB, ICH		R-1030-100
Orexin Receptor Type 1 (327-342)	Mouse	IgG	Hu	WB, ELISA	1E3	M-840-100