



# Anti-Orexin A (aa 14-33) polyclonal antibody (DPAB3845)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Product Overview</b>	Rabbit polyclonal antibody to bovine orexin A.
<b>Antigen Description</b>	<p><b>FUNCTION:</b> Neuropeptides that play a significant role in the regulation of food intake and sleep-wakefulness, possibly by coordinating the complex behavioral and physiologic responses of these complementary homeostatic functions. A broader role in the homeostatic regulation of energy metabolism, autonomic function, hormonal balance and the regulation of body fluids, is also suggested. Orexin-A binds to both OX1R and OX2R with a high affinity, whereas orexin-B binds only to OX2R with a similar high affinity. <b>SUBCELLULAR LOCATION:</b> Endoplasmic reticulum; rough endoplasmic reticulum. Associated with perikaryal rough endoplasmic reticulum as well as cytoplasmic large granular vesicles at synapses. <b>SIMILARITY:</b> Belongs to the orexin family.</p>
<b>Specificity</b>	The specificity for this antiserum has been confirmed by immunohistochemistry on rat brain and the results reflect the current literature.
<b>Immunogen</b>	A synthetic peptide (CRLYELLHGAGNHAAGILTL) as part of Bovine Orexin A (aa: 14-33) conjugated to KLH has been used as the immunogen.
<b>Isotype</b>	IgG
<b>Source/Host</b>	Rabbit
<b>Species Reactivity</b>	Bovine
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	IHC
<b>Reconstitution</b>	Reconstitute in 100 µl of sterile water. Centrifuge to remove any insoluble material.

<b>Format</b>	Lyophilised
<b>Size</b>	100 µl
<b>Preservative</b>	None
<b>Storage</b>	After reconstitution keep aliquots at -20°C for a higher stability, and at 4°C with an appropriate antibacterial agent. Glycerol (1:1) may be added for an additional stability. Avoid repetitive freeze/thaw cycles.

## BACKGROUND

<b>Introduction</b>	Orexin A (hypocretin 1) a 33 amino acid peptide and orexin B (hypocretin 2), a 28 amino acid peptide, are both derived from a common 130 amino acid precursor, prepro orexin. Orexin A and Orexin B stimulate food consumption when administered intracerebroventricularly to rats. Orexin gene expression in the brain is highly restricted to distinct populations of neurons located in specific hypothalamic regions, including the lateral hypothalamic area (LHA), a region implicated in feeding behaviour. Orexin A and orexin B bind to and activate two closely related G protein coupled receptors (GPCRs), termed Orexin 1 (OX1) and Orexin 2 (OX2) receptors. Dysfunction of the orexin peptide system has been linked to narcolepsy.
<b>Keywords</b>	Orexin-A, Hypocretin-1, Hcrt1; HCRT 1; HCRT; HCRT2; Hypocretin (orexin) neuropeptide precursor; Hypocretin 1; Hypocretin 2; Hypocretin A; Hypocretin; Hypocretin neuropeptide precursor; Hypocretin1; NRCLP1; Orexin A; Orexin; Orexin B; Orexin precursor; OrexinA; OX; PPORX; PPOX; REPROOREXIN

## GENE INFORMATION

<b>Entrez Gene ID</b>	<a href="#">3060</a>
<b>UniProt ID</b>	<a href="#">O43612</a>