**BACKGROUND**

The hypothalamus is essential for maintaining homeostasis by integrating the vertebrate endocrine and nervous systems, thereby controlling temperature, thirst and hunger. Orexin-A and Orexin-B (also designated hypocretins) are hypothalamic neuropeptides that are derived from a single precursor, prepro-orexin, by proteolytic processing. These peptides bind to and activate two closely related, G protein-coupled receptors, designated Orexin receptor-1 and Orexin receptor-2. Orexin-A protein and prepro-orexin mRNA are localized to neurons within the lateral section of the hypothalamus, designated the “feeding center”. Prepro-orexin mRNA is upregulated during fasting, suggesting that orexins may play a role in the central feedback mechanism that regulates feeding behavior. Orexin has been shown to increase the release of GABA and glutamate from axons, a response seen as a result of most synaptic activities in the hypothalamic region.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: HCR (human) mapping to 17q21.2; Hcr (mouse) mapping to 11 D.

**SOURCE**

Orexin-A (KK09) is a mouse monoclonal antibody raised against amino acids 34-66 of Orexin-A of human origin.

**PRODUCT**

Each vial contains 100 µg IgG kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and protein stabilizer.

**STORAGE**

Store at 4°C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

Orexin-A (KK09) is recommended for detection of Orexin-A of mouse, rat and human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with Orexin-B.


**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.