Orexin-A (KK09): sc-80263

**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 (Orexin R-1) and Orexin receptor-2 (Orexin R-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: HCRT (human) mapping to 17q21.2; Hcrt (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 50 µg IgG, kappa light chain in 0.5 ml of PBS with < 0.1% sodium azide and protein stabilizer.

**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.


Molecular Weight of Orexin-A: 13 kDa.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: Immunofluorescence: use m-IgG® BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941or UltraCruz® Hard-set Mounting Medium: sc-359850.

**SELECT PRODUCT CITATIONS**


**STORAGE**

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

**RESEARCH USE**

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