



## Rat orexin A

Catalog No: tcsc0025344

Available Sizes	
Size: 1mg	
Size: 5mg	
Specifications	
<b>CAS No:</b> 205640-90-0	
<b>Formula:</b> C <sub>152</sub> H <sub>243</sub> N <sub>47</sub> O <sub>44</sub> S <sub>4</sub>	
<b>Pathway:</b> Others	
<b>Target:</b> Others	
Purity / Grade: >98%	
<b>Solubility:</b> H2O	

**Observed Molecular Weight:** 

3561.1

## **Product Description**

Rat orexin A is an important neuropeptide involved in the regulation of feeding, arousal, energy consuming, and reward seeking in the body.

In Vitro: Rat orexin A is an important neuropeptide involved in the regulation of feeding, arousal, energy consuming, and reward seeking in the body. It is found that Rat orexin A promotes astrocytes migration in different time and concentrations. Rat orexin A has a maximal effect at 10 nM and 24 h treatment (increases the migrating distance of the astrocytes into ~240%, increases the



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migrating area of the astrocytes into  $\sim$ 190%). Results also demonstrate that Rat orexin A-induced phosphorylation of ERK1/2 is significantly elevated (0.38 $\pm$ 0.03 in Rat orexin A 10 nM group vs. 0.21 $\pm$ 0.01 in control group, n=3, p

*In Vivo:* Rat orexin A delays the day of vaginal opening in rats of Group 4 comparing to that in Group 3. Results indicate that injection of Rat orexin A can ameliorate central precocious puberty in rats. Lower mRNA level of MEG3 is observed in precocious puberty rats injected with Rat orexin A than that in precocious puberty rats injected with normal saline. Rat orexin A also reverses the dysregulation of Kisspeptin in hypothalamus of central precocious puberty rats<sup>[2]</sup>. In A6, many or most dopamine  $\beta$  hydroxylase (DBH)-positive neurons appear to be activated by Rat orexin A. Results also demonstrate that food intake is significantly enhanced by local Rat orexin A injection (P[3].



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