

# Nociceptin (FL-176): sc-33600

## BACKGROUND

Nociception, a pain response mechanism, occurs in response to stimuli that threaten the integrity of an organism. The first synapses produced as a result of the initiation of nociception are modulated by excitatory amino acids (glutamate and aspartate) and many peptides (substance P, CGRP, CCK, endogenous opioids). Nociceptin (also designated orphanin FQ) is a neuronal peptide that is similar to opioid peptides. Nociceptin activates KOR-3 ( $\kappa$ -type opioid receptor, also designated ORL1), a G protein-coupled receptor. Although similar to dynorphin A, a  $\kappa$  opioid peptide, Nociceptin functions to make animals hyperreactive to nociceptive stimulations. Nociceptin is also involved in locomotor behavior and may be involved in the modulation of synaptic plasticity in learning and memory.

## REFERENCES

1. Meunier, J.C., et al. 1995. Isolation and structure of the endogenous agonist of opioid receptor-like ORL1 receptor. *Nature* 377: 532-535.
2. Reinscheid, R.K., et al. 1995. Orphanin FQ: a neuropeptide that activates an opioidlike G protein-coupled receptor. *Science* 270: 792-794.

## CHROMOSOMAL LOCATION

Genetic locus: PNOC (human) mapping to 8p21; Pnoc (mouse) mapping to 14 D1.

## SOURCE

Nociceptin (FL-176) is a rabbit polyclonal antibody raised against amino acids 1-176 representing full length Nociceptin of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

Nociceptin (FL-176) is recommended for detection of Nociceptin and Neuropeptide1 and 2 processed active peptides of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

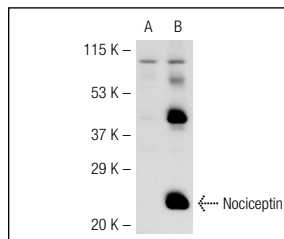
Suitable for use as control antibody for Nociceptin siRNA (h): sc-106306, Nociceptin siRNA (m): sc-150018, Nociceptin shRNA Plasmid (h): sc-106306-SH, Nociceptin shRNA Plasmid (m): sc-150018-SH, Nociceptin shRNA (h) Lentiviral Particles: sc-106306-V and Nociceptin shRNA (m) Lentiviral Particles: sc-150018-V.

Positive Controls: Nociceptin (h): 293T Lysate: sc-114382 or mouse brain extract: sc-2253.

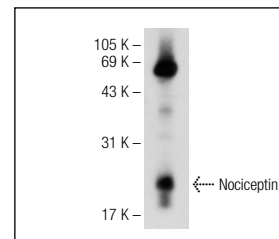
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## DATA



Nociceptin (FL-176): sc-33600. Western blot analysis of Nociceptin expression in non-transfected: sc-117752 (A) and human Nociceptin transfected: sc-114382 (B) 293T whole cell lysates.



Nociceptin (FL-176): sc-33600. Western blot analysis of Nociceptin expression in mouse brain tissue extract.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Nociceptin (F-10): sc-398073**, our highly recommended monoclonal alternative to Nociceptin (FL-176).