



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# Sigma Receptor (m2): 293T Lysate: sc-125997

## BACKGROUND

Sigma Receptor, also known as opioid receptor,  $\sigma 1$  (Opr1), acts as a modulatory system influencing the analgesic activity of opioid drugs. For example, activation of the Sigma Receptor is induced during the early effects of cocaine. At the cellular level, Sigma Receptor agonists modulate intracellular calcium mobilization and extracellular calcium influx, NMDA-mediated responses, and acetylcholine release, and alter monoaminergic systems. At the behavioral level, the Sigma Receptor is involved in learning and memory processes, response to stress, depression, neuroprotection and pharmacodependence. Pregnenolone, dehydroepiandrosterone and their sulfate esters behave as Sigma Receptor agonists, while progesterone is a potent antagonist. Sigma Receptor is expressed in the endocrine, immune and other peripheral organ systems, and is expressed in a variety of human tumors. The Sigma Receptor is responsible for the pathogenesis of some psychiatric disorders and may be involved in several diseases of the central nervous system. Opioid analgesia is influenced by many factors, including the Sigma Receptor.

## REFERENCES

- Walker, J.M., et al. 1990. Sigma receptors: biology and function. *Pharmacol. Rev.* 42: 355-402.
- Ferris, C.D., et al. 1991. Sigma receptors: from molecule to man. *J. Neurochem.* 57: 729-737.
- Su, T.P. 1991. Sigma Receptors. Putative links between nervous, endocrine and immune systems. *Eur. J. Biochem.* 200: 633-642.
- Kekuda, R., et al. 1996. Cloning and functional expression of the human type 1 Sigma Receptor (hSigmaR1). *Biochem. Biophys. Res. Commun.* 229: 553-558.
- Prasad, P.D., et al. 1998. Exon-intron structure, analysis of promoter region, and chromosomal localization of the human type 1 Sigma Receptor gene. *J. Neurochem.* 70: 443-451.
- Maurice, T., et al. 2001. The interaction between neuroactive steroids and the  $\sigma 1$  receptor function: behavioral consequences and therapeutic opportunities. *Brain Res. Brain Res. Rev.* 37: 116-132.
- Narita, M., et al. 2001. A putative  $\sigma 1$  receptor antagonist NE-100 attenuates the discriminative stimulus effects of ketamine in rats. *Addict. Biol.* 6: 373-376.
- Mei, J. and Pasternak, G.W. 2001. Molecular cloning and pharmacological characterization of the rat  $\sigma 1$  receptor. *Biochem. Pharmacol.* 62: 349-355.
- Mei, J. and Pasternak, G.W. 2002.  $\sigma 1$  receptor modulation of opioid analgesia in the mouse. *J. Pharmacol. Exp. Ther.* 300: 1070-1074.

## CHROMOSOMAL LOCATION

Genetic locus: *Sigmar1* (mouse) mapping to 4 A5.

## PRODUCT

Sigma Receptor (m2): 293T Lysate represents a lysate of mouse Sigma Receptor transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

Sigma Receptor (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Sigma Receptor antibodies Recommended use: 10-20  $\mu$ l per lane.

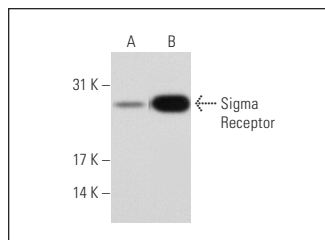
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Sigma Receptor (B-5): sc-137075 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Sigma Receptor expression in Sigma Receptor transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



Sigma Receptor (B-5): sc-137075. Western blot analysis of Sigma Receptor expression in non-transfected: sc-117752 (A) and mouse Sigma Receptor transfected: sc-125996 (B) 293T whole cell lysates.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## RESEARCH USE

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

## PROTOCOLS

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