

Morphine (MOP-7): sc-69864

BACKGROUND

Morphine, the most powerful opiate analgesic drug in opium, acts directly on synapses of the arcuate nuclei within the central nervous system to relieve pain. It is a highly addictive drug, to which tolerance as well as physical and psychological dependences quickly develop. Administered as intravenous, subcutaneous or epidural injections, Morphine creates a profound contraction sensation in the muscles due to Histamine release and also produces a "rush" mediated by different receptors in the central nervous system. Morphine is a phenanthrene opioid receptor agonist. By binding to μ opioid receptors within the central nervous system associated with analgesia, sedation, physical dependence and respiratory depression, the euphoric effects of Morphine are quickly followed by withdrawal symptoms.

REFERENCES

1. Sudakov, S.K., et al. 2006. Changed Morphine sensitivity of Morphine-dependent rats after laser of the cerebral prefrontal cortex. *Bull. Exp. Biol. Med.* 141: 226-229.
2. Wan, Q., et al. 2006. Morphine upregulates functional expression of neurokinin-1 receptor in neurons. *J. Neurosci. Res.* 84: 1588-1596.
3. Meymandi, M.S., et al. 2006. Gabapentin enhances the analgesic response to Morphine in acute model of pain in male rats. *Pharmacol. Biochem. Behav.* 85: 185-189.
4. Misra, N., et al. 2006. Vibrational dynamics of Morphine in relation to Leu5- and Met5-enkephalins. *Indian J. Biochem. Biophys.* 43: 173-181.
5. Jang, S., et al. 2006. Attenuation of Morphine tolerance and withdrawal syndrome by coadministration of nalbuphine. *Arch. Pharm. Res.* 29: 677-684.
6. Bhat, R., et al. 2006. Prenatal cocaine and Morphine alter brain cyclin-dependent kinase 5 (Cdk5) activity in rat pups. *Neurotoxicol. Teratol.* 28: 625-628.
7. Gallagher, E.J., et al. 2006. Randomized clinical trial of Morphine in acute abdominal pain. *Ann. Emerg. Med.* 48: 150-160.
8. Chen, Y.P., et al. 2006. Effect of Morphine on dorsal horn projection neurons in neuropathic pain rats. *Zhong Nan Da Xue Xue Bao Yi Xue Ban* 31: 534-537.
9. Pypendop, B.H., et al. 2006. Effects of epidural administration of Morphine and buprenorphine on the minimum alveolar concentration of isoflurane in cats. *Am. J. Vet. Res.* 67: 1471-1475.

SOURCE

Morphine (MOP-7) is a mouse monoclonal antibody raised against Morphine conjugated to BSA.

STORAGE

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

RESEARCH USE

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

PRODUCT

Each vial contains 200 μ g IgG₁ lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Morphine (MOP-7) is available conjugated to agarose (sc-69864 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-69864 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-69864 PE), fluorescein (sc-69864 FITC), Alexa Fluor[®] 488 (sc-69864 AF488), Alexa Fluor[®] 546 (sc-69864 AF546), Alexa Fluor[®] 594 (sc-69864 AF594) or Alexa Fluor[®] 647 (sc-69864 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-69864 AF680) or Alexa Fluor[®] 790 (sc-69864 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA

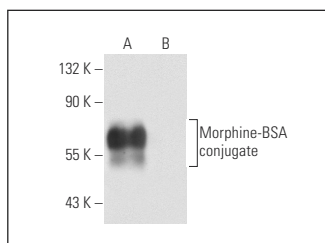
APPLICATIONS

Morphine (MOP-7) is recommended for detection of Morphine by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG λ BP-HRP: sc-516132 or m-IgG λ BP-HRP (Cruz Marker): sc-516132-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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Morphine (MOP-7): sc-69864. Western blot analysis of morphine in morphine-BSA conjugate (A) and BSA (B).

PROTOCOLS

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