BACKGROUND

Endogenous opioid peptides and opiates, like morphine, transmit their pharmacological effects through membrane bound opioid receptors. Pharmacological studies and molecular cloning have led to the identification of three different types of opioid receptor, μ-type, δ-type and κ-type, also designated MOR-1, DOR-1 and KOR-1, respectively. MOR-1 is a receptor for β-endorphin, DOR-1 is a receptor for enkephalins, and KOR-1 is a receptor for dynorphins. The three opioid receptor types are highly homologous and belong to the superfamily of G protein-coupled receptors. Opioid receptors have been shown to modulate a range of brain functions, including instinctive behavior and emotions. This regulation is thought to involve the inhibition of neurotransmitter release by reducing calcium ion currents and increasing potassium ion conductance.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: OPRK1 (human) mapping to 8q11.23; Oprk1 (mouse) mapping to 1A1.

SOURCE

KOR-1 (D-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 351-380 within a C-terminal cytoplasmic domain of KOR-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG κ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

KOR-1 (D-8) is available conjugated to agarose (sc-374479 AC), 500 µg/0.25 ml agarose in 1 ml, for WB, IHC/IP and ELISA; to either phycoerythrin (sc-374479 PE), fluorescein (sc-374479 FITC), Alexa Fluor® 488 (sc-374479 AF488), Alexa Fluor® 546 (sc-374479 AF546), Alexa Fluor® 594 (sc-374479 AF594) or Alexa Fluor® 647 (sc-374479 AF647), 200 µg/ml, for WB (RGB), IF, IHC/IP and FCM; and to either Alexa Fluor® 680 (sc-374479 AF680) or Alexa Fluor® 790 (sc-374479 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374479 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

KOR-1 (D-8) is recommended for detection of KOR-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Positive Controls: AT-3 whole cell lysate or PC-12 cell lysate: sc-2250.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

DATA

SELECT PRODUCT CITATIONS


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.