

Dynorphin (C-12): sc-46313

BACKGROUND

The proenkephalin precursor proteins are secreted proteins belonging to the opioid neuropeptide precursor family. The proenkephalin proteins are proteolytically processed to form active secreted opioid peptides which function as ligands for the κ -type of opioid receptor. Proenkephalin A precursor contains synkephalin, Leu-enkephalin and Met-enkephalin processed active peptides while the Proenkephalin B precursor contains β -neoendorphin, Dynorphin, leumorphin, Leu-enkephalin and rimorphin processed active peptides. β -endorphin and Met-enkephalin are endogenous opiates, while ACTH is crucial for adrenal gland stimulation to release cortisol. MSH-increased melanin production in melanocytes which leads to an increase in skin pigmentation. Leumorphin may be important in apoptosis prevention by being involved in the MAP-K and PI 3-K pathways. Dynorphin, a κ opioid receptor agonist, is produced by many different populations of neurons in the brain, mainly in hypothalamus, hippocampus and spinal cord. Dynorphin can function as an antidote to pleasurable effects of cocaine and may therefore be important in fighting addiction. Blocking dynorphin production may help alleviate depression.

CHROMOSOMAL LOCATION

Genetic locus: PDYN (human) mapping to 20p13; Pdyn (mouse) mapping to 2 F1.

SOURCE

Dynorphin (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Proenkephalin B of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-46313 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Dynorphin (C-12) is recommended for detection of Dynorphin and the Proenkephalin B precursor of mouse, rat and human origin 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)], 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).

Dynorphin (C-12) is also recommended for detection of Dynorphin and the Proenkephalin B precursor in additional species, including equine, canine, bovine and porcine.

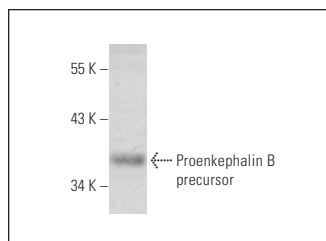
Molecular Weight of Dynorphin: 35 kDa.

Positive Controls: SH-SY5Y cell lysate: sc-3812.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



Dynorphin (C-12): sc-46313. Western blot analysis of Proenkephalin B precursor expression in SH-SY5Y whole cell lysate.

SELECT PRODUCT CITATIONS

- Shen, H.Y., et al. 2013. Adenosine A_{2A} receptors in striatal glutamatergic terminals and GABAergic neurons oppositely modulate psychostimulant action and DARPP-32 phosphorylation. PLoS ONE 8: e80902.
- Prast, J.M., et al. 2014. Reacquisition of cocaine conditioned place preference and its inhibition by previous social interaction preferentially affect D1-medium spiny neurons in the accumbens corridor. Front. Behav. Neurosci. 8: 317.
- Prast, J.M., et al. 2014. Increased conditioned place preference for cocaine in high anxiety related behavior (HAB) mice is associated with an increased activation in the accumbens corridor. Front. Behav. Neurosci. 8: 441.

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 or our catalog for detailed protocols and support products.