

Leumorphin (C-16): sc-46382

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.

REFERENCES

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4. Smith, E.M., et al. 1990. Nucleotide and amino acid sequence of lymphocyte-derived corticotropin: endotoxin induction of a truncated peptide. Proc. Natl. Acad. Sci. USA 87: 1057-1060.
5. Lee, B.D., et al. 2005. Leumorphin has an anti-apoptotic effect by activating epidermal growth factor receptor kinase in rat pheochromocytoma PC12 cells. J. Neurochem. 95: 56-67.
6. Younes, A., et al. 2005. Ischemic preconditioning increases the bioavailability of cardiac enkephalins. Am. J. Physiol. Heart Circ. Physiol. 289: H1652-H1661.
7. Lisi, T.L., et al. 2005. A new electrochemical HPLC method for analysis of enkephalins and endomorphins. J. Neurosci. Methods 150: 74-79.
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CHROMOSOMAL LOCATION

Genetic locus: PDYN (human) mapping to 20p13.

SOURCE

Leumorphin (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Proenkephalin B of human origin.

STORAGE

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

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-46382 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Leumorphin (C-16) is recommended for detection of Proenkephalin B and the processed active peptide Leumorphin of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Leumorphin (C-16) is also recommended for detection of Proenkephalin B and the processed active peptide Leumorphin in additional species, including equine and canine.

Molecular Weight of Leumorphin: 35 kDa.

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) 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.

RESEARCH USE

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

PROTOCOLS

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