

Syntenkephalin (N-13): sc-46545

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 Syntenkephalin, Leu-enkephalin and Met-enkephalin processed active peptides while the Proenkephalin B precursor contains β -neoendorphin, dynorphin, leuromorphin, 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. Leuromorphin may be important in apoptosis prevention by being involved in the MAP-K and PI 3-K pathways.

REFERENCES

1. Zurawski, G., et al. 1986. Activation of mouse T-helper cells induces abundant preproenkephalin mRNA synthesis. *Science* 232: 772-775.
2. Thorne, B.A., et al. 1989. Expression of mouse proopioidmelanocortin in an Insulinoma cell line. Requirements for β -endorphin processing. *J. Biol. Chem.* 264: 3545-3552.
3. 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.
4. Kilpatrick, D.L., et al. 1990. Transcription of the rat and mouse proenkephalin genes is initiated at distinct sites in spermatogenic and somatic cells. *Mol. Cell. Biol.* 10: 3717-3726.
5. Younes, A., et al. 2005. Ischemic preconditioning increases the bioavailability of cardiac enkephalins. *Am. J. Physiol. Heart Circ. Physiol.* 289: H1652-H1661.

CHROMOSOMAL LOCATION

Genetic locus: PENK (human) mapping to 8q12.1; Penk (mouse) mapping to 4 A1.

SOURCE

Syntenkephalin (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Proenkephalin A 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-46545 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

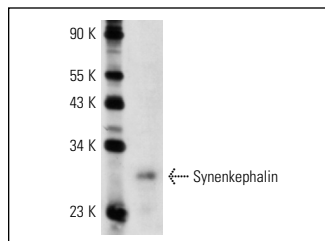
Syntenkephalin (N-13) is recommended for detection of Proenkephalin A and the processed active peptide Syntenkephalin of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total 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).

Syntenkephalin (N-13) is also recommended for detection of Proenkephalin A and the processed active peptide Syntenkephalin in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for proenkephalin A siRNA (h): sc-45771, proenkephalin A siRNA (m): sc-45772, proenkephalin A shRNA Plasmid (h): sc-45771-SH, proenkephalin A shRNA Plasmid (m): sc-45772-SH, proenkephalin A shRNA (h) Lentiviral Particles: sc-45771-V and proenkephalin A shRNA (m) Lentiviral Particles: sc-45772-V.

Molecular Weight of Syntenkephalin: 35 kDa.

DATA



Syntenkephalin (N-13): sc-46545. Western blot analysis of Syntenkephalin expression in mouse testis tissue extract.

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.



Try **Met-enkephalin (1194/334): sc-80877**, our highly recommended monoclonal alternative to Syntenkephalin (N-13).