

Proenkephalin B (A-7): sc-365227

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. The Proenkephalin A precursor contains Synenkephalin, Leu-enkephalin and Met-enkephalin processed active peptides, while the Proenkephalin B precursor contains β -neoendorphin, Dy-norphin, 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 increases 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 kinase and PI 3-kinase pathways.

REFERENCES

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- 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.
- 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.
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CHROMOSOMAL LOCATION

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

SOURCE

Proenkephalin B (A-7) is a mouse monoclonal antibody raised against amino acids 1-254 representing full length Proenkephalin B of human origin.

PRODUCT

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

APPLICATIONS

Proenkephalin B (A-7) is recommended for detection of Proenkephalin B 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).

Suitable for use as control antibody for Proenkephalin B siRNA (h): sc-72061, Proenkephalin B siRNA (m): sc-72062, Proenkephalin B shRNA Plasmid (h): sc-72061-SH, Proenkephalin B shRNA Plasmid (m): sc-72062-SH, Proenkephalin B shRNA (h) Lentiviral Particles: sc-72061-V and Proenkephalin B shRNA (m) Lentiviral Particles: sc-72062-V.

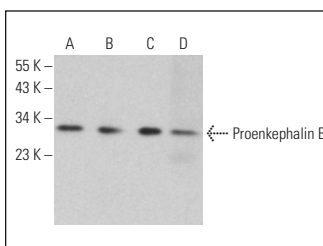
Molecular Weight of Proenkephalin B: 28 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, C6 whole cell lysate: sc-364373 or MOLT-4 whole cell lysate: sc-2233.

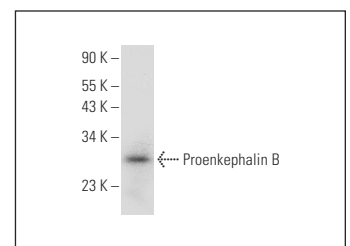
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Proenkephalin B (A-7): sc-365227. Western blot analysis of Proenkephalin B expression in HeLa (A), Neuro-2A (B) and C6 (C) whole cell lysates and human brain tissue extract (D).



Proenkephalin B (A-7): sc-365227. Western blot analysis of Proenkephalin B expression in MOLT-4 whole cell lysate.

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.

PROTOCOLS

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