**BACKGROUND**

The corticotropin-lipotropin protein, also designated pro-opiomelanocortin, belongs to the POMC family of proteins. Specific cleavages by enzymes at certain basic paired sites yield various processed active peptides. The corticotropin-lipotropin protein contains synenkephalin, Leu-enkephalin, NPP, α, β and γ-melanotropin (MSH), adrenocorticotropic hormone (ACTH), lipotropin β and γ, β-endorphin and Met-enkephalin processed active peptides. β-endorphin and Met-enkephalin are endogenous opiates while ACTH is crucial for adrenal gland stimulation to release cortisol. Met/Leu enkephalins also function in pain perception and response to stress. 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 MAPK and PI 3-K pathways.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: PENK (human) mapping to 8q12.1, POMC (human) mapping to 2p23.3; Penk (mouse) mapping to 4 A1, Pome (mouse) mapping to 12 A1.1.

**SOURCE**

Met/Leu-enkephalin (NOC1/35) is a mouse monoclonal antibody raised against a synthetic peptide corresponding to Leuβ enkephalin of human origin.

**PRODUCT**

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

**APPLICATIONS**

Met/Leu-enkephalin (NOC1/35) is recommended for detection of Proenkephalin A and the processed active peptides Met-enkephalin and Leu-enkephalin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range), 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:1000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:1000-1:5000), 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 goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

**DATA**

Met/Leu-enkephalin (NOC1/35): sc-47705. Western blot analysis of human recombinant Proenkephalin.

**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.