

# urocortin III (A-13): sc-324481

## BACKGROUND

Urocortins 1, 2 and 3 are the mammalian homologs of fish urotensin I. Mammalian urocortin is a member of the corticotropin-releasing hormone (CRH) family that is expressed in a region of the rat midbrain. The distinct expression pattern in discrete brain regions suggests that it influences such behavior as feeding, anxiety, and auditory processing. Synthetic human urocortin binds with high affinity to CRH receptors and acts *in vitro* to release ACTH from dispersed rat anterior pituitary cells. It is suggested that urocortin may be an endogenous CRF-like factor in the brain responsible for the effects of stress on appetite. The gene which encodes urocortin maps to human chromosome 2. Specifically, urocortin III is a specific ligand for CRF type 2 receptor which mediates stress-coping responses. Human urocortin I and III are expressed in the human heart. Urocortin III is also expressed in the pituitary gland, adrenal gland, GI tract, ovary, spleen, brain and kidney.

## REFERENCES

1. Vaughan, J., et al. 1995. The mammalian neuropeptide urocortin, related to fish urotensin I and to corticotropin-releasing factor. *Nature* 378: 287-292.
2. Donaldson, C.J., et al. 1996. Cloning and characterization of human urocortin. *Endocrinology* 137: 2167-2170.
3. Spina, M., et al. 1996. Appetite-suppressing effects of urocortin, a CRF-related neuropeptide. *Science* 273: 1561-1564.
4. Ames, R.S., et al. 1999. Human urotensin-II is a potent vasoconstrictor and agonist for the orphan receptor GPR14. *Nature* 401: 282-286.
5. Hsu, S.Y., et al. 2001. Human stresscopin and stresscopin-related peptide are selective ligands for the type 2 corticotropin-releasing hormone receptor. *Nat. Med.* 7: 605-611.
6. Vetter, D.E., et al. 2002. Urocortin-deficient mice show hearing impairment and increased anxiety-like behavior. *Nat. Med.* 31: 363-369.
7. Takahashi, K., et al. 2004. Urocortins as cardiovascular peptides. *Peptides* 25: 1723-1731.

## CHROMOSOMAL LOCATION

Genetic locus: UCN3 (human) mapping to 10p15.1.

## SOURCE

urocortin III (A-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of urocortin III of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-324481 P, (100 µg 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

urocortin III (A-13) is recommended for detection of urocortin III 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); non cross-reactive with urocortin or urocortin II.

urocortin III (A-13) is also recommended for detection of urocortin III in additional species, including equine, canine and bovine.

Suitable for use as control antibody for urocortin III siRNA (h): sc-39401, urocortin III shRNA Plasmid (h): sc-39401-SH and urocortin III shRNA (h) Lentiviral Particles: sc-39401-V.

Molecular Weight of urocortin III: 18 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.