

urotensin II (UII-13): sc-52299

BACKGROUND

Two major regulatory peptides were originally isolated from fish urophysal extracts, urotensin I and II. In both frog and human, the urotensin II sequence is located at the carboxy-terminal position of the precursor. Human urotensin II is composed of only 11 amino acid residues, while fish and frog urotensin II possess 12 and 13 amino acid residues, respectively. The cyclic region of urotensin II, which is responsible for the biological activity of the peptide, has been fully conserved from fish to human. However, several substitutions have occurred in the amino-terminal region of the molecule. A human G protein-coupled receptor, GPR14, is the urotensin II receptor. Human urotensin II is found within both vascular and cardiac tissue, including coronary atheroma, and effectively constricts isolated arteries from non-human primates. Urotensin II may act as an autocrine and/or paracrine hormone rather than as a circulating hormone, by playing an important role in the development of ventricular hypertrophy induced by chronic hypoxia.

REFERENCES

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- Bousette, N., et al. 2004. Increased expression of urotensin II and its cognate receptor GPR14 in atherosclerotic lesions of the human aorta. *Atherosclerosis* 176: 117-123.
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CHROMOSOMAL LOCATION

Genetic locus: UTS2 (human) mapping to 1p36.23.

SOURCE

urotensin II (UII-13) is a mouse monoclonal antibody raised against human urotensin II of human origin.

RESEARCH USE

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

PRODUCT

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

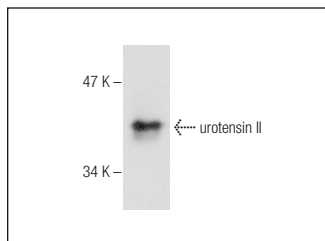
APPLICATIONS

urotensin II (UII-13) is recommended for detection of urotensin II of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for urotensin II siRNA (h): sc-39832, urotensin II shRNA Plasmid (h): sc-39832-SH and urotensin II shRNA (h) Lentiviral Particles: sc-39832-V.

Molecular Weight of urotensin II: 14 kDa.

DATA



urotensin II (UII-13): sc-52299. Western blot analysis of human recombinant urotensin II.

SELECT PRODUCT CITATIONS

- Cui, H., et al. 2021. Urantide decreases hepatic steatosis in rats with experimental atherosclerosis via the MAPK/Erk/JNK pathway. *Mol. Med. Rep.* 23: 1-10.

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 for detailed protocols and support products.