

Product Specification Sheet

Urotensin II (UII) Antibodies

Cat. UT22-M Mouse Monoclonal Anti- Human UII IgG (affinity pure) **SIZE:** 100 ug

Urotensins are neuropeptide secreted from the urophysis in the caudal neurosecretory system of the fishes. Two bioactive Urotensins, U1 and UII have been cloned from various species including mammals. UI is 41 aa peptide, which showed prolonged hypotensive effects in mammals. It is structurally similar to mammalian corticotropin-releasing factor. **UII** is a vasoactive 'somatostatin-like' 12-aa cyclic peptide with similarity to somatostatin-14. Human UII is composed of only 11 aa residues, while fish and frog UII possess 12 and 13 aa, respectively. The cyclic region of the UII, which is responsible for the biological activity of the peptide, has been fully conserved from fish to human. UII expression has been observed predominantly in the spinal cord.

Recently, an orphan human G-protein coupled receptor homologous to rat GPR14 has been identified as the receptor for UII (2). **GPR14** is expressed predominantly in cardiovascular tissue. Human UII effectively stimulated total peripheral resistance in anesthetized non-human primates, a response associated with profound cardiac contractile dysfunction. GPR14 (rat 386 aa and human 389 aa, ~75% homology) contains 7 transmembrane domains. It is most closely related to somatostatin receptor4. GPR14 is mostly expressed in the heart and pancreas, while low expression was detected in the brain.

Source of Antigen and Antibodies

Antigen	Purified UII full length conjugated with carrier protein
Ab Host/type	Balb/c mouse . Splenocytes were fused with Sp2/0 myeloma cells. Resulting clone (designated UT2, isotype IgG1), selected for reactivity with human UT2, was expanded into mice as ascites . Antibody has been purified by Protein A/G column chromatography.
2-Ab	Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available)
-ve control IgG	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG
100 ug/100ul solution lyophilized powder
Supplied in **Buffer:** PBS+0.05% azide
Reconstitute powder in PBS at 1mg/ml

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder

Recommended Usage

ELISA (1:10K-1:100K; using 50-100 ng control peptide/well).

Histochemistry & Immunofluorescence: not tested. We recommend the use of affinity purified antibody at 2-20 ug/ml in formaldehyde fixed tissue.

Specificity & Cross-reactivity

Ut21-M reacts with human UTII. Antibody crossreactivity in various species is not established.

General References: (1) Coulouran Y et al (1999) FEBS Lett. 457, 28-32; Coulouran Y et al (1999) Proc. Natl. Acad. Sci. 95, 15803-15808; Ames RS et al (1999) Nature 401, 282-286; Marchese A et al (1995) Genomics 29, 335-344; Tal M et al (1995) BBRC 209, 752-759

*This product is for in vitro research use only.

Related material available from ADI

Study distribution of proteins in 12 regions of rat/mouse brain using **ReadyBrain Blots**

UT22-M 71208A

India Contact:

Life Technologies (India) Pvt. Ltd.

306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi - 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444
Email: customerservice@lifetechindia.com Website: www.lifetechindia.com