

## RayBiotech, Inc.

3607 Parkway Lane suite 200 Norcross, GA 30092 Tel: 770-729-2992, 1-888-494-8555

Fax: 770-206-2393

Website: www.raybiotech.com Email: info@raybiotech.com

# Certificate of Analysis and Data Sheet

# **Recombinant Human Urinary Trypsin Inhibitor (UTI)**

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2)	Catalog No.	$\langle \langle  $	Source:	~
	228-11594	S.	Human Urine	~ %
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### Synonyms:

UTI, Bikunin, Uristatin, Ulinastatin, AMBP, EDC1, HI30, ITIL, IATIL, ITILC, Urinary Trypsin Inhibitor.

#### Introduction:

Urinary-Trypsin Inhibitor is a glucoprotein proteinase inhibitor with a molecular weight of about 67,000 derived from human urine which inhibits the activity of trypsin, chymotrypsin, lactate, lipase, hyaluronidase and various pancreatic enzymes. Ulinastatin is effective for acute pancreatitis, chronic recurrent pancreatitis and hemorrhagic, traumatic and endotoxic shocks. Ulinastatin is has strong inhibition effect to various protease, sugar and fat hydrolase. Ulinastatin precursor is proteolytically processed into distinct functioning proteins. Urinary trypsin inhibitor belongs to the superfamily of Kunitz-type protease inhibitors and plays an important role in many physiological and pathological processes. Uristatin gene is located on chromosome 9 in a cluster of lipocalin genes.

High levels of Ulinastatin secretion is an early marker of renal tubular involvement and has radical scavenging activity. Bikunin localizes cell membrane.

Free uristatin and bikunin pass readily into urine and are primarily bound to heavy chains that constitute the proinhibitor form in plasma.

Ulinastatin particularly interacts with ORF3 protein of hepatitis E virus and in charge for enhancing alpha microglobulin export from the hepatocyte.

## Description:

Recombinant Ulinastatin produced in Yeast is a single, glycosylated, polypeptide having 143 amino acids, molecular mass of 20 kDa and predicted pI of 4.5.

## Physical Appearance:

Sterile Filtered solution.

#### Formulation:

Formulated in 1X PBS.



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## Stability:

Ulinastatin although stable at 15°C for 2 weeks, should be stored below -18°C. Please prevent freeze-thaw cycles.

## Purity

Greater than 98.0% as determined by

- (a) Analysis by RP-HPLC.
- (b) Anion-exchange FPLC.

### Biological Activity:

Greater than 3000U/mg as measured by BAEE method.

#### Amino Acid Sequence

AVLPQEEEGS GGGQLVTEVT KKEDSCQLGY SAGPCMGMTS RYFYNGTSMACETFQYGGCM GNGNNFVTEK ECLQTCRTVA ACNLPIVRGP CRAFIQLWAFDAVKGKCVLF PYGGCQGNGN KFYSEKECRE YCGVPGDGDE ELL.