

# **California Bioscience**

## **Product Datasheet**

| Product Name | Urinary Trypsin Inhibitor Human Recombinant   |
|--------------|---|
| Cata No      | CB501465  |
| Source       | Pichia Pastoris   |
| Synonyms     | UTI, Bikunin, Uristatin, Ulinastatin, AMBP, EDC1, HI30, ITIL, IATIL, ITILC, Urinary Trypsin Inhibitor |

### Description

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

#### **Physical Appearance**

Sterile Filtered solution.

### **Biological Activity**

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

### Purity

Greater than 98.0% as determined by:(a) Analysis by RP-HPLC.(b) Anion-exchange FPLC.

### Formulation

Formulated in 1X PBS.

### Stability

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

### Sequence

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