

# **California Bioscience**

# **Product Datasheet**

Product Name	Urinary Trypsin Inhibitor-Ulinastatin Human
Cata No	CB500942
Source	Human Urine.
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. Ulinastatin is derived from human urine.

#### **Physical Appearance**

Sterile Filtered White lyophilized (freeze-dried) powder.

#### **Biological Activity**

Human UTI has an activity of 1000IU/mg.

#### Purity

Greater than 98.0% as determined by:(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.

#### Formulation

Lyophilized from a (1mg/ml) solution containing no additives.

### Reconstitution

It is recommended to reconstitute the lyophilized UTI in sterile  $18M\Omega$ -cm H2O not less than  $100\mu$ g/ml, which can then be further diluted to other aqueous solutions.

#### Stability

Lyophilized UTI although stable at room temperature for 3 weeks, should be stored desiccated below -18℃. Upon reconstitution UTI should be stored at 4℃ between 2-7 days and for future use below -18℃.

Please prevent freeze-thaw cycles.