

## Urokinase from Human, recombinant

Cat. No. NATE-1690

Lot. No. (See product label)

### Introduction

#### Description

Urokinase or Urokinase-type plasminogen activator (uPA) is a serine protease (EC 3.4.21.73). It is secreted as a single-chain zymogen, pro-Urokinase, possessing little or no intrinsic enzymatic activity. The single chain zymogen is converted into the active two chain enzyme (tcuPA) by cleavage of the bond between Lys157 and Ile158. After activation, Urokinase specifically cleaves the proenzyme plasminogen to form the active enzyme plasmin. The active plasmin then catalyzes the breakdown of fibrin polymers of blood clots. Urokinase is involved in a number of biological functions including fibrinolysis, embryogenesis, cell migration, tissue remodeling, ovulation, and wound healing. Additionally, it is a potent marker of invasion and metastasis in a variety of human cancers associated with breast, stomach, colon, bladder, ovary, brain and endometrium.

#### Synonyms

Two chain urokinase-type plasminogen activator; tcuPA; PLAU; ATF; UPA; URK; u-PA; BDPLT5; QPD

### Product Information

#### Species

Human

#### Source

E. coli

#### Form

Lyophilized powder

#### Formulation

0.5 mg/ml solution of protein in 25 mM sodium acetate, 50 mM NaCl, pH 5.0 containing 50% glycerol.

#### EC Number

EC 3.4.21.73

#### Molecular Weight

49.3 kDa

#### Purity

> 90% by SDS-PAGE

#### Activity

>1500 mU/mg

#### Unit Definition

1 U = Digestion of 1  $\mu$ mole of Z-GGR-AMC substrate in 1 min at 37°C.

### Usage and Packaging

#### Reconstitution

Briefly spin down the vial and reconstitute in water to 0.5-1 mg/ml and store at -80°C.

### Storage and Shipping Information

#### Storage

Stable at -80°C for at least 1 year as supplied. Store reconstituted aliquots at -80°C. Avoid repeated freeze and thaw cycles.