Data Sheet (Cat.No.TMPH-00324)

SVTLE Protein, Calloselasma rhodostoma, Recombinant (His)

General Information

Synonyms:	Venombin A;Thrombin-like enzyme ancrod;SVTLE;Snake venom serine protease (SVSP); Fibrinogen-clotting enzyme
Protein Construction:	1-234 aa
Species:	Calloselasma rhodostoma
Expression Host:	P. pastoris (Yeast)
Accession:	P26324
Molecular Weight:	28.6 kDa (predicted)
AA Sequence:	VIGGDECNINEHRFLVAVYEGTNWTFICGGVLIHPEWVITAEHCARRRMNLVFGMHRKSEKFDDEQERYPKKR YFIRCNKTRTSWDEDIMLIRLNKPVNNSEHIAPLSLPSNPPIVGSDCRVMGWGSINRRIDVLSDEPRCANINLH NFTMCHGLFRKMPKKGRVLCAGDLRGRRDSCNSDSGGPLICNEELHGIVARGPNPCAQPNKPALYTSIYDYR DWVNNVIAGNATCSP

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Tris-based buffer, 50% glycerol

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Thrombin-like snake venom serine protease that acts as an anticoagulant. It cleaves fibrinogen (FGA) to split off the A-fibrinopeptides (A, AY and AP), but not the B-fibrinopeptide. The resulting fibrin polymers are imperfectly formed and much smaller in size (1 to 2 um long) than the fibrin polymers produced by the action of thrombin.

These ancrod-induced microthrombi are friable, unstable, urea-soluble and have significantly degraded alpha chains. They do not cross-link to form thrombi. They are markedly susceptible to digestion by plasmin and are rapidly removed from circulation by either reticuloendothelial phagocytosis or normal fibrinolysis, or both. Anticoagulation through the removal of fibrinogen from the blood is rapid, occurring within hours following its administration. It does not activate plasminogen and does not degrade preformed, fully cross-linked thrombin fibrin. It also reduces the level of plasminogen activator inhibitor (PAI) and may stimulate the release of tissue plasminogen activator (PLAT) from the endothelium. The profibrinolytic effect of these 2 actions appears to be limited to local microthrombus degradation.

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