



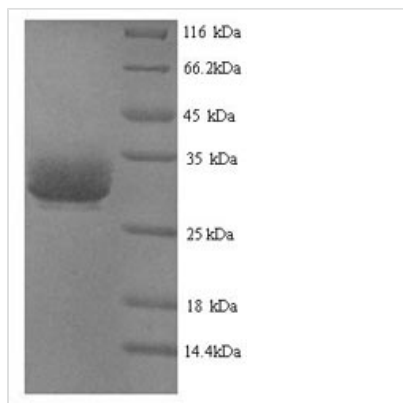
Recombinant Calloselasma rhodostoma Thrombin-like enzyme ancrod

Product Code	CSB-YP338742CBG
Relevance	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.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P26324
Storage Buffer	Tris-based buffer, 50% glycerol
Product Type	Recombinant Proteins
Immunogen Species	Calloselasma rhodostoma (Malayan pit viper) (Agkistrodon rhodostoma)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	VIGGDECNINEHRFLVAVYEGTNWTFICGGVLIHPEWVITAEHCARRRMNLFV GMHRKSEKFDDEQERYPKKRYFIRCNKTRTSWDEDIMLIRLNKPVNNSEHIAP LSLPSNPPIVGSDCRVMGWGSINRRIDVLSDEPRCANINLHNFTMCHGLFRKM PKKGRVLCAGDLRGRDSCNSDSGGPLICNEELHGIVARGPNPCAQPNKPAL YTSIYDYRDWVNNVIAGNATCSP
Lead Time	3-7 business days
Research Area	Others
Source	Yeast
Gene Names	N/A
Protein Names	Recommended name: Thrombin-like enzyme ancrod Short name= SVTLE EC= 3.4.21.74 Alternative name(s): Fibrinogen-clotting enzyme Snake venom serine protease Short name= SVSP Venombin A



Expression Region	1-234aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	28.6kDa
Protein Description	Full Length

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The recombinant *Calloselasma rhodostoma* Thrombin-like enzyme ancrod (SVTLE) is a yeast-expressed (1-234aa) protein with N-terminal 6xHis tag. The purity is 90%+ measured by SDS-PAGE. The highly developed genetic system, ease of use, reduced time input, and costs have made *Pichia Pastoris* an attractive organism for the expression and production of recombinant proteins. So we choose the Yeast system to express this recombinant Thrombin-like enzyme ancrod (SVTLE) protein, which is able to carry specifically designed plasmids, and the plasmid used consists of restriction sites that can be used to insert the gene sequence of interest. Transformation of yeasts with the plasmid produces the desired protein and can be appropriately scaled up.

Ancrod is a thrombin-like enzyme that induces rapid defibrinogenation in humans by splitting fibrinopeptide A from fibrinogen. Ancrod was developed for the treatment of ischaemic stroke and myocardial infarction as well as deep-vein thrombosis. In addition to reducing fibrinogen, ancrod also lowers blood viscosity, suppresses erythrocyte aggregation, indirectly stimulates thrombolysis, and possibly leads to vasodilatation. It also possesses a weak anticoagulant activity at high dosages.