Datasheet

Cat. No. P1571

Recombinant Staphylokinase

Information

Gene ID	
Accession #	
Alternate Names	Sak42D
Source	Escherichia coli.
M.Wt	Approximately 15.6 kDa, a single non-glycosylated polypeptide chain containing 136 amino acids.
AA Sequence	SSSFDKGKYK KGDDASYFEP TGPYLMVNVT GVDGKRNELL SPRYVEFPIK PGTTLTKEKI EYYVEWALDA TAYKEFRVVE LDPSAKIEVT YYDKNKKKEE TKSFPITEKG FVVPDLSEHI KNPGFNLITK VVIEKK
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 12 months from date of receipt, -20 to -70 °C as supplied - 1 month, 2 to 8 °C under sterile conditions after reconstitution - 3 months, -20 to -70 °C under sterile conditions after reconstitution
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-0.5 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The specific activity determined by fibrining lysis in agarose plate is 5.0 × 10^4 IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	100μg	500μg
Recombinant Staphylokinase	100μg	500μg

Use a manual defrost freezer and avoid repeated freeze-thaw cycles
- 12 months from date of receipt, -20 to -70 °C as supplied
- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 3 months, -20 to -70 °C under sterile conditions after reconstitution

Quality Control

Purity	> 97% by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rSAK as determined by LAL method.

Description

Staphylokinase is an amino acid enzyme secreted by several species of streptococci. It is a 16kDa potent plasminogen activator that converts plasminogen into plasmin which can digest fibrin the major constituent of blood thrombi. SAK forms 1:1 complex with plasmin, which is a positive feedback of producing other complexes. Recent studies on the thrombolytic potential of recombinant SAK in achieving early perfusion in myocardial infarction and in the dissolution of platelet-rich clot have clearly established its immense utility in clinical medicine as a thrombolytic agent and suggested that it can be developed as a potent clot-dissolving agent.

Reference

1. Matsuo O, Okada K, Fukao H, et al. 1990. Blood, 76: 925-9
2. Collen D, Schlott B, Engelborghs Y, et al. 1993. J Biol Chem, 268: 8284-9
3. Shishido Y, Matsumoto T, Sakai M, et al. 1994. Biol Pharm Bull, 17: 1060-4
4. Ohlenschlager O, Ramachandran R, Flemming J, et al. 1997. J Biomol NMR, 9: 273-86.

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