

# Staphylokinase

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Human, Recombinant (rHuSAK)

Expressed in *E. coli*

Cat. No. CRP08119

Lot. No. (See product label)

## PRODUCT INFORMATION

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**Description:** Staphylokinase (SAK), a 16kDa profibrinolytic protein from the *Staphylococcus aureus*, has been demonstrated to induce highly fibrin-specific thrombolysis in both human plasma and in limited clinical trials. It is positively regulated by the "agr" gene regulator. It activates plasminogen to form plasmin, which digests fibrin clots. This disrupts the fibrin meshwork which can often form to keep an infection localized. Recent studies on the thrombolytic potential of recombinant SAK in achieving early perfusion in myocardial infarction and in the dissolution of platelet-rich clots 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.

**Amino-Acid Sequence:** 136aa, non-glycosylated

**M. W. :** approximately 16 kDa

**Recombinant:** Expressed in *E. coli*

**Purity:** >95% by SDS-PAGE and HPLC analyses.

**Formulation:** Lyophilized from a 0.2mm filtered concentrated (1mg/ml) solution in PBS, pH 7.4.

**Endotoxin:** Less than 1EU/mg of rSAK as determined by LAL method.

**Specific Activity:** Fully biologically active when compared to standard. The specific biological activity measured by the ability of fibrin lysis in agarose plate was found to be 50000U/mg.

**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 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at  $\leq -20^{\circ}\text{C}$ . Further dilutions should be made in appropriate buffered solutions.

**Storage:** This lyophilized preparation is stable for several weeks at  $2-8^{\circ}\text{C}$ , but should be kept at  $-20^{\circ}\text{C}$  for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at  $2-8^{\circ}\text{C}$ . For maximal stability, apportion the reconstituted preparation into working aliquots and store at  $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$ . Avoid repeated freeze/thaw cycles.

## FOR RESEARCH USE ONLY

## REFERENCES

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Bokarewa MI, Jin T, Tarkowski A. (2006) *Staphylococcus aureus*: Staphylokinase Int J Biochem Cell Biol 38(4): 504-9