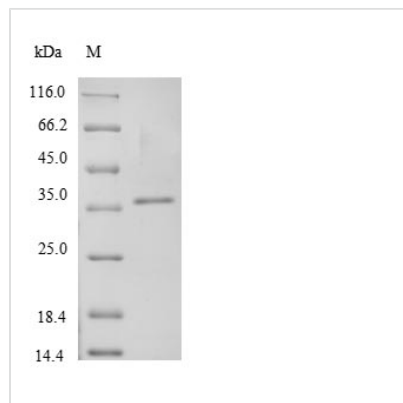




Recombinant Staphylococcus aureus Clumping factor A (clfA), partial

Product Code	CSB-EP753416SKWe1
Relevance	Cell surface-associated protein implicated in virulence. Promotes bacterial attachment exclusively to the gamma-chain of human fibrinogen. Induces formation of bacterial clumps
Abbreviation	Recombinant Staphylococcus aureus clfA protein, partial
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.	Q6GB45
Alias	Fibrinogen receptor A Fibrinogen-binding protein A
Product Type	Recombinant Protein
Immunogen Species	Staphylococcus aureus (strain MSSA476)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	GKDITNQLTNVTVGIDSGDTVYPHQAGYVKLNYGFSVPNSAVKGDTFKITVPKE LNLNGVTSTAKVPPIMAGDQVLANGVIDSDGNVIYTFDYYVDTKENV TANITMP AYIDPENVTKTGNVTLTTGIGSTTANKTVLV DYEKYGKFYNLSIKGTIDQIDKTN NTYRQTIYVNP SGDNVIAPVLTGNLKPNTDSNALIDQQNTSIKVYKVDNAADLS ESYFVN PENFEDVTNSVNITFPNPNQYKVEFNT PDDQITTPYIVV VNGHIDPNS KGD LALRSTLYGYDSRFVWRSM SWDNEVAFNNGSGSGDGIDKPVVPEQPDE PGEIEPIPE
Source	E.coli
Target Names	clfA
Expression Region	228-558aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag-Free
Mol. Weight	36.1kDa
Protein Length	Partial
Image	



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

Description

The expression of recombinant *Staphylococcus aureus* clfA protein includes the construction of the expression vector containing the recombinant DNA and the transformation of the expression vector into the *E. coli*, which provides a variety of macromolecules and components required for transcription and translation. The recombinant DNA encodes the 228-558aa of the *Staphylococcus aureus* clfA protein. This N-terminal 6xHis-tagged recombinant *Staphylococcus aureus* clfA protein is also characterized by high purity, >90%. Under SDS-PAGE condition, this recombinant clfA protein migrated to the band of about 36 kDa molecular weight.

ClfA is a virulence factor from *Staphylococcus aureus*. As a virulence factor, ClfA is an important virulence factor that promotes the pathogenesis of the diseases and can be a target for generation of vaccine against *S. aureus* infections. As the targeted protein is highly antigenic and conserved, hence the designed novel vaccine construct holds potential against emerging multi-drug-resistant organisms. Genetic elimination of the binding motif on fibrinogen for the *S. aureus* virulence factor ClfA improves host survival in septicemia. B. There are many distinct virulence factors related to the disease establishment. In *Staphylococcus* spp. factors such as the fibronectin-binding proteins (fnbA and fnbB), elastin binding proteins (ebpS), clumping factors (clfA and clfB), and collagen-binding protein (cna) play important roles in binding to host cells, colonization, and invasion. Sortase A is an essential virulence factor of *S. aureus*, which is responsible for the determinants, which can escape host immune response and cause a series of diseases. SrtA mediates anchoring of several adhesion-related proteins, such as ClfA/ClfB.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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.