Recombinant Circumsporozoite Protein (rCSP) [Plasmodium falciparum isolate 3D7]

Background

Plasmodium falciparum is one of the Plasmodium species that causes malaria in humans. The sporozoite form of this protozoan parasite is transferred to humans through the bite of infected mosquitoes. Once injected, the sporozoites are carried to the liver where invasion of the hepatocytes is mediated by circumsporozoite protein (CSP). CSP is the predominant surface antigen on Plasmodium sporozoites, and has been the focus of a large number of malaria vaccine development efforts, yet its role and function in the infection of hepatocytes is still not fully understood.

This product represents the full-length of Plasmodium falciparum 3D7 circumsporozoite protein\(^1\) covering amino acids 21 to 382. Only the native signal peptide at the N-terminal, and the putative GPI anchor sequence at the C-terminal of the protein were removed for expression in Pseudomonas fluorescens.

Description

Source: Pseudomonas fluorescens expressed recombinant Plasmodium falciparum 3D7 circumsporozoite protein.

Product Molecular Mass: 38.7 kDa

Specifications

Purity: > 95%, by SDS-PAGE under reducing conditions
Endotoxin Level: < 1000 EU/mg of protein by LAL method
Formulation: Frozen in phosphate-buffered saline (1x PBS), pH 7.5

Storage

Store frozen at less than -20 °C upon receipt. Avoid frost-free freezers.

Dilute aseptically with sterile deionized water immediately prior to use. Store diluted rCSP at less than -20 °C. Avoid repeated freeze-thaw.

Reagent Grade Product is for RESEARCH USE ONLY and NOT FOR HUMAN USE.

Reference:

[1]. GenBank\(^\text{TM}\) Protein Sequence Database number CAB38998.2