



Recombinant Core Streptavidin 4

Product Name: Recombinant Core Streptavidin 4, r-cSA4

Catalog Number: NRPA36S

Packing Details: 1 mg, 10 mg, 100 mg, 500 mg

Formulation: Lyophilized from 5mM PB (4mM Na₂HPO₄, 1mM NaH₂PO₄, pH7.4)

Mol. Wt.: Subunit monomer 13.2 kDa; tetramer 52.8kDa

Theory pI: 5.14

Theoretical activity: 18.1 U/mg protein (rc-SA:Biotin = 1:4(mol:mol))

Activity: ≥ 15 U/mgprotein (Green improved method)

Purity: ≥ 95% (SDS-PAGE)

Concentration determination: 280nm absorption method, molar absorption coefficient is

$$4.74 \times 10^4 (\text{mol/L})^{-1} \cdot \text{cm}^{-1} \quad c(\text{g/L}) = A_{280\text{nm}}/3.18$$

Endotoxin: ≤ 5EU/mg

Resources: Escherichia coli (E. coli)

Storage Condition: -20 °C

Storage Duration: 3 years

Description:

Streptavidin (SA) has a high affinity with biotin. The affinity constant KD can reach 10-15m, and the active SA usually exists in the form of tetramer. Because SA does not contain glycosyl, it has a lower level of non-specific binding than avidin in detection and application. SA has been widely used in enzyme-linked immunosorbent assay, immunohistochemistry, time-resolved immunofluorescence Technology (TRFIA), quantitative PCR, single strand DNA preparation, biological fraction purification, monoclonal antibody preparation and other biotechnology fields.

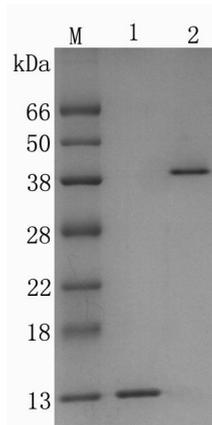
In theory, one SA can bind four biotins, but in the biotinylated macromolecules, due to the space hindrance, the usual SA can only bind one or two biotinylated macromolecules. We optimized the space structure of recombinant core streptavidin 4 at the molecular level, which has more advantages in binding with biotinylated macromolecules. Conventional biotinylated macromolecules can bind two or four, and the stability is also better than that of conventional biotinylated macromolecules. The average SA or CSA is much higher. It is more suitable for scientific research, diagnostic testing and other fields.

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M: Protein Molecular Weight Marker

Lane 1: r-cSA4