Recombinant Streptomyces avidinii Streptavidin, Tag Free, Azide Labeled

Cat. No. Streptavidin-13 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Streptomyces avidinii Streptavidin without tag was expressed in E. coli.
Species	Streptomyces avidinii
Source	E.coli
ProteinLength	37-163 aa
Conjugation/Label	Azide
Description	Streptavidin-azide is an azide-modified streptavidin that is designed for site-specific conjugation by click chemistry reaction. The sole azido group is located at the c-terminus of streptavidin. It reacts very efficiently to Dibenzocyclooctyne (DBCO) or alkyne-modified molecules and forms a stable covalent bond. In addition, streptavidin-azide contains a long polyethylene glycol (PEG) spacer (76 atoms) to span the protein and azide. Such a design minimizes the interference between the biotin-binding site and the conjugated molecules. Hence, this innovative streptavidin-azide is extremely useful when random amine-mediated conjugation interferes with the function of the conjugate. In contrast, generally, modification and conjugation of streptavidin is performed on random amines provided by lysine residues and the n-terminal amino acid. Because streptavidin contains at least 5 amino groups, the amine-based conjugation is not site-specific and the products are heterogeneous with a low activity. However, our streptavidin-azide can generate a homogeneous

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	conjugate.
Form	Liquid
Molecular Mass	14.5 kDa (Monomer) or 58.0 kDa (Tetramer)
Purity	≥ 95% by SDS-PAGE
Applications	In vitro research use only Antibodies, oligonucleotides, enzymes (HRP, phosphatase), fluorescent dyes (Alexa, ATTO, FITC, R-PE, APC, PerCP), drugs, peptides, and solid supports can be modified by DBCO or alkyne crosslinkers. The modified biomolecules are attached to the c-terminus of Streptavidin-azide at a controllable ratio. In addition, the coupling is very efficient with high yields and purity. Moreover, the conjugates retain the biotin-binding activity.
Storage	At -20 centigrade. Avoid freeze/thaw cycle
Storage Buffer	Sodium phosphate buffer, pH7.2
Concentration	> 1.0 mg/mL
Shipping	Cold packs

GENE INFORMATION

Synonyms	Streptavidin
UniProt ID	P22629

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