kementec

Streptavidin

LABELS & CONJUGATES

Lyophilized, from Streptomyces avidinii
Cat. no. 4610

Product Characteristics
Streptavidin is a protein produced by Streptomyces avidinii and isolated by purification from fermentation broth. The pure, homogeneous protein shows predominantly one single band in SDS PAGE. Streptavidin consists of four identical subunits, each bearing an active binding site for biotin. The isoelectric point (pH 5-6) of streptavidin is in the same area as where many biological interactions occur and the high affinity of the biotin-streptavidin interaction results in a very quick reaction with a high signal-to-noise ratio.

As streptavidin is non- or very low charged, around pH 7, it reduces nonspecific binding to charged molecules to a very limited level. Streptavidin binds four moles of biotin per mole of protein with a high affinity. Therefore, the protein is useful in combination with, for instance, biotinylated antibodies in order to obtain amplified signals detecting sub-nanogram amounts of antigen. It can also be used in fluorescence applications, and gold particles can successfully be conjugated to the streptavidin**.** Other applications cover Southern and Western Blotting, purification done by use of immobilized Streptavidin and methodologies for DNA/RNA analysis. Streptavidin is non-glycosylated and does not react unspecifically with endogenous lectins when used in assays on cells and tissues.

Composition & Properties

Activity:	≥ 14.0 U/mg (one unit binds 1 µg biotin)
Protein Concentration:	App. 0.90 mg pr. mg lyophilizate
Purity:	SDS - 1 band (non-reduced)
Mol. Weight:	~52 kDalton, composed of four essentially identical polypeptide chains
Ip:	Slightly acidic, 5-6

Tips & Tricks
- Highly suitable on microtiter plates for use in combination with the Kementec plate blocker & stabilizer, WellChampion (cat. no. 4900).
- The Streptavidin is supplied as a lyophilized powder which may be dissolved in de-ionized water up to 50 mg/mL.

Handling & Storage
- Store dry at -20 °C. Equilibrate the product to room temperature before opening.

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