

# Maleimide Activated Streptavidin

<b>CATALOG #:</b>	M1324-1 (1 mg)
<b>MOL. WEIGHT:</b>	14 kDa (monomer); 56 kDa (tetramer)
<b>pH:</b>	7.2 ± 0.2
<b>ACTIVATION METHOD:</b>	Sulfo-SMCC
<b>BINDING CAPACITY:</b>	~2-4 mg of peptide (average MW of 1000 - 3000) per 2 mg streptavidin
<b>FORM:</b>	Lyophilized powder
<b>RECONSTITUTION:</b>	Reconstitute in distilled water at a concentration of 1-5 mg/ml with gentle stirring.
<b>STORAGE CONDITION:</b>	Lyophilized Maleimide-Activated Streptavidin should be stored at -20°C and is stable for 1 year. Reconstitute right before use. <b>Note: Use the reconstituted protein immediately. Do not store it.</b>
<b>DESCRIPTION:</b>	Maleimide Activated Streptavidin is commonly used to facilitate the conjugation of streptavidin to proteins, peptides and ligands containing sulfhydryl (-SH) groups for using it as an enzyme-linked detection reagent. Maleimide Activated Streptavidin is a streptavidin that has been modified by hetero bi-functional cross linker, Sulfo-SMCC and contains several maleimide groups per streptavidin molecule while maintaining the streptavidin binding activity for biotin. After conjugation, the activated streptavidin will form a covalent interaction with the peptides or ligands containing sulfhydryl groups and can be used as a probe for detection in various assays such as ELISA, Western Blot etc.
<b>APPLICATIONS:</b>	ELISA and Western Blot

## PROTOCOL FOR PEPTIDE CONJUGATION:

1. Dissolve the sulfhydryl-containing peptide/hapten in 0.2-0.5 ml of phosphate buffer, pH 7.2. **Note:** For peptides/haptens with limited solubility in phosphate buffer, add DMSO (do not exceed more than 15% final DMSO concentration). Avoid pH values (> 8.5) that may increase hydrolysis rate of maleimide group or result in reactions with primary amines. Peptides/haptens must contain cysteine or free sulfhydryl group to react efficiently with the maleimide group. Make sure the peptide/hapten has sulfhydryl groups and not disulfide bridges.
2. Thaw the Maleimide Activated Streptavidin at room temperature (RT) and dissolve it in distilled H<sub>2</sub>O right before use to yield a concentration of 1-5 mg/ml.  
**Note:** Do not vortex vigorously or heat the activated streptavidin.
3. Immediately mix the peptide (2-4 mg) with activated streptavidin and incubate at RT for 2-8 hr under occasional mixing.
4. Peptide-conjugated streptavidin can be purified by gel filtration or dialysis to remove the unconjugated peptide.  
**Note:** If the peptide-conjugated streptavidin is to be stored for > 2 weeks, it is recommended to store at -20°C. The peptide-conjugated streptavidin can be stored at -20°C for more than 6 months. Avoid repeated freeze-thaw cycles.
5. The coupling efficiency of conjugation can be determined by assaying the content of free sulfhydryl groups in the unreacted peptide using Sulfo-SMCC reagent.

## RELATED PRODUCTS:

- Maleimide Activated HRP (Cat. No. M1322)
- Maleimide Activated KLH (Cat. No. M1317)
- Maleimide Activated OVA (Cat. No. M1318)
- Maleimide Activated BSA (Cat. No. M1316)

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