Maleimide Activated BSA

CATALOG NO: M1316-2 2 mg
M1316-10 10 mg

MOL. WEIGHT: ~ 66.5 kDa

pH: 7.2 ± 0.2

ACTIVATION METHOD: Sulfo-SMCC

BINDING CAPACITY: ~2-4 mg of peptide (average MW of 1000 - 3000) per 2 mg BSA

FORM: Off-white powder

RECONSTITUTION: Reconstitute in distilled water at the concentration of 2-5 mg/ml with gentle stirring.

STORAGE CONDITION: Lyophilized Maleimide-activated BSA should be stored at -20°C and is stable for 1 year. Reconstitute right before use.
Note: **Use the reconstituted protein immediately. Do not store it.**

DESCRIPTION: Maleimide Activated BSA commonly used as a carrier protein for haptens (small molecules/low molecular weight molecules and peptides) in order to enable the immune response. BSA is the most popular carrier protein used for Immunization or ELISA coating. BioVision's maleimide activated BSA is produced by pre-activation with hetero bi-functional cross linker Sulfo-SMCC which facilitates the peptides and ligands that contain sulfhydryl (- SH) groups to bind covalently to activated carrier protein.

PROTOCOL:

PROCEDURE FOR PEPTIDE CONJUGATION:

1. Dissolve the sulfhydryl-containing hapten in 0.2-0.5 ml of phosphate buffer pH 7.2.
   Note: For haptens with limited solubility in phosphate buffer add DMSO (do not exceed DMSO 15% of total volume). Alkaline pH values (above 8.5) may hydrolyze the maleimide group or generate side reactions with amines. Haptens must contain cysteine or a sulfhydryl group in the reduced state in order to react efficiently with the maleimide group.

2. Thaw the Maleimide Activated BSA at room temperature and dissolve it in distilled H_2O right before use to yield a concentration of 2-5 mg/ml.
   Note: Do not vortex vigorously or heat the activated BSA.

3. Immediately mix the peptide (2.5 mg) with activated BSA (2.5 mg) and incubate at room temperature for 2 hrs. under occasional mixing.

4. Peptide-conjugated BSA can be purified by gel filtration or dialysis to remove unconjugated peptide.
   Note: If the immunogen is to be stored for > 2 weeks, it is recommended to store at -20°C. The Hapten-BSA can be stored at -20 for more than 6 months. Avoid repeated freeze-thaw.

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 KLH **(Cat. No. M1317)**
- Maleimide Activated OVA **(Cat. No. M1318)**

FOR RESEARCH USE ONLY! Not to be used on humans.