

Maleimide Activated HRP

CATALOG #:	M1322-1 M1322-5	1 mg 5 mg
ACTIVATION METHOD:	Sulfo-SMCC	
MOL. WEIGHT:	~ 40 kDa	
pH:	7.2 ± 0.2	
FORM:	Lyophilized	
BINDING CAPACITY:	~2-4 mg of peptide (average MW of 1000 – 3000) per 2 mg HRP	
RECONSTITUTION:	Reconstitute in distilled water at the concentration of 2-5 mg/ml with gentle stirring.	
STORAGE CONDITIONS:	Lyophilized maleimide-activated HRP 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 Horseradish Peroxidase (HRP) is commonly used to facilitate the conjugation of HRP to proteins, peptides and ligands that contain sulfhydryl (-SH) groups for use as an enzyme-linked detection reagent. This product consists of HRP that has been modified with the hetero bi-functional cross linker Sulfo-SMCC and it generally contains several maleimide groups per HRP molecule while maintaining most of the HRP activity. After conjugation, the activated HRP will form a covalent interaction with the peptides or ligands containing sulfhydryl groups and can be used as a HRP probe for detection in different assays such as ELISA and western blot etc.	
APPLICATIONS:	ELISA, Western blot	

PROTOCOL:

PROCEDURE FOR PEPTIDE CONJUGATION:

- 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 maleimide group.
- Thaw the Maleimide Activated HRP at room temperature and dissolve it in distilled H₂O right before use to yield a concentration of 2-5 mg/ml.
Note: Do not vortex vigorously or heat the activated HRP.
- Immediately mix the peptide (2.5 mg) with activated HRP (2.5 mg) and incubate at room temperature for 2 hrs under occasional mixing.
- Peptide-conjugated HRP can be purified by gel filtration or dialysis to remove unconjugated peptide.
Note: If the peptide-conjugated HRP is to be stored for > 2 weeks, it is recommended to store at -20°C. The peptide-conjugated HRP can be stored at -20°C for more than 6 months. Avoid repeated freeze-thaw.
- 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 (M1317)
- Maleimide Activated OVA (M1318)
- Maleimide Activated BSA (M1316)

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