

Maleimide Activated mKLH *Optimized for Maximum Immunization Response*

Catalog Number: 5612

Unit Size: 5 x 1 mg

Product Details

Storage Conditions	Freeze (< -15 °C)
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Solid
Molecular Weight	N/A
Soluble In	Water

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

Maleimide Activated mKLH is engineered to facilitate the conjugation of sulfhydryl-containing peptide haptens to the highly immunogenic keyhole limpet hemocyanin (KLH) carrier protein, optimizing it for immunization and antibody production. This high-purity, mariculture-derived KLH is chemically modified with a Sulfo-SMCC crosslinker, rendering it reactive to sulfhydryl groups (-SH) on cysteine residues of peptides and other thiol-containing haptens. This modification enables the conjugation of multiple antigen molecules to each KLH molecule, significantly enhancing immunogenicity and increasing the likelihood of eliciting high-titer antisera in immunized subjects. The conjugation reaction with cysteine-containing peptides is performed at pH 6.6-7.0, and the extent of conjugation can be determined by a colorimetric assay using Ellman's reagent to detect unreacted thiol groups. Maleimide-activated mKLH is supplied in a lyophilized, ready-to-use form, eliminating the need for time-consuming activation and purification steps.