

**E2-35: Influence of conjugation position on the specificity of anti-peptide antibodies elicited by peptide carrier conjugates**

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Peptides chemically linked to carrier proteins are widely used to produce anti-peptide antibodies. Such antibodies can specifically react with the corresponding native proteins and this forms the basis for developing peptide-based vaccines against infectious diseases.

Three structurally related peptides derived from a 45 KDa *Plasmodium falciparum* merozoite surface protein were synthesised by standard solid phase procedures. The peptides differed in the location of the cysteine used for coupling and the presence or absence of 3 N-terminal amino acids. Peptides were chemically linked to bovine serum albumin (BSA) with 6-maleimido caproic acyl-N-hydroxysuccinimide ester (MCS).

BALB/c mice were immunised with the peptide - BSA conjugates using Freund's complete adjuvant. Specificities of the anti-peptide antibodies produced in this way were tested by an enzyme linked immunosorbent assay using free peptides and peptides conjugated to an unrelated carrier protein viz. keyhole limpet haemocyanin as target antigens.

The study showed that the specificities of antibodies generated against peptides were dependent on the position of the cysteine used for coupling viz MCS.