

Targeting Talk: *Custom Conjugations*

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Part II: Targeted Toxins (Peptide-Saporin conjugates)

Q: How do I know my peptide will work as a targeted toxin?

A: There is a rich literature that demonstrates peptides can usher proteins that inhibit protein synthesis (such as saporin) into cells and result in cell death. Peptide ligands that bind to the cell surface (i.e., to their receptors) are internalized—in fact, often quite rapidly. As with all saporin cytotoxins, internalization is necessary; antagonists that do not internalize would not be expected to be proper agents for a saporin cytotoxin. All agonists that have a decent affinity and internalization rate should work as a targeted toxin.

Q: How much peptide do I need to provide for a custom conjugation?

A: Actually, we will consult with you on the structure-function properties of your peptide. We will need to synthesize an entirely new peptide for conjugation to saporin. We will, in collaboration with you and/or by examination of the literature, design the new peptide and have it synthesized (it is our plan to have peptide synthesis capabilities in 2003). We pass the price of the peptide, usually quite reasonable,

directly to you without any increase.

Q: How much of the saporin conjugate will that give me?

A: We strive to give you 2-3 mg of peptide-saporin cytotoxin. These often are effective in the nanogram range.

Q: What is the ratio of saporin to antibody?

A: We synthesize the conjugate such that there is one mole of saporin per mole of peptide.

Q: What quality control is involved?

A: We monitor the reactions and purification by several means. The product is confirmed by gel electrophoresis. A data sheet will be provided when we ship the immunotoxin to inform you of final average molecular weight.

Q: What is the cost of a custom targeted toxin preparation? How long will it take to complete?

A: The standard cost of a peptide-saporin conjugation is US\$3500.00, plus the price of the peptide. From the time we receive the peptide to the time we ship out the finished targeted toxin is 2-3 weeks.

Second Immunotoxins are most effective in determining the specificity of your targeting agent (peptide, antibody, ligand) and suitability for conjugation as a primary immunotoxin.

ATS recommends that you order a custom conjugation of your antibody to saporin when the *in vitro* results confirm the desired specificity.

Avidinylated-SAP (Cat. # IT-09)

*a conjugate of avidin
and the ribosome-inactivating protein, saporin*

Converts biotinylated materials into targeted toxins.

Hum-ZAP (Cat. # IT-22)

*a conjugate of affinity purified goat anti-human IgG
and the ribosome-inactivating protein, saporin*

Cells that internalize your human monoclonal antibody will be eliminated.

Mab-ZAP (Cat. # IT-04)

*a conjugate of affinity purified goat anti-mouse IgG
and the ribosome-inactivating protein, saporin*

Cells that internalize your mouse monoclonal antibody will be eliminated.

Rab-ZAP (Cat. # IT-05)

*a conjugate of affinity purified goat anti-rabbit IgG
and the ribosome-inactivating protein, saporin*

Cells that internalize your rabbit polyclonal antibody will be eliminated.

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Booth #545



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November 8-12, 2003
New Orleans, Louisiana