

## Targeting Talk: *Custom Conjugations*

by Dr. Douglas A. Lappi

### **Part I: Immunotoxins** **(Antibody-Saporin conjugates)**

**Q:** How do I know my antibody will work in an immunotoxin?

**A:** We recommend that you use one of our second immunotoxins (see below) to test for specificity and internalization of your antibody. Each purchase gives you a \$100 credit towards a custom conjugation.

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

**A:** The required quantity is 8-15 mg of purified monoclonal antibody.

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

**A:** The yield is 20-40% in mg of immunotoxin from the number of mg of original antibody.

**Q:** What is the ratio of saporin to antibody?

**A:** The amount of saporin can vary between 1.5-3 moles saporin per mole of antibody.

**Q:** What chemistry and conjugation conditions are involved in the preparation of a custom immunotoxin?

**A:** While much of the conjugation is proprietary, I will say that we introduce a disulfide linkage between antibody and saporin. We've never had a situation in which the antibody binding is not preserved, so we do guarantee that and the activity of saporin.

**Q:** What quality control is involved? Will you provide product specifications such as average saporin to antibody ratio?

**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 immunotoxin preparation? How long will it take to complete?

**A:** The standard cost of an antibody-saporin conjugation is US\$3500.00. From the time we receive the purified antibody to the time we ship out the finished immunotoxin is 2-3 weeks.

**Second Immunotoxins** are most effective in determining the specificity of your antibody 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 internalized by 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 internalized by 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 internalized by your rabbit polyclonal antibody will be eliminated.

Society for Neuroscience  
November 3-6, 2002  
Orlando, Florida • Booth #1616



### Upcoming Events

Experimental Biology  
April 11-15, 2003  
San Diego, California