

Control Conjugates: The Perfect Companion

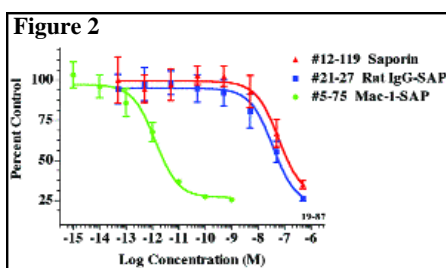
(continued from page 1)

ATS targeted toxins fall into three categories: immunotoxins, ligand toxins and second immunotoxins. To provide researchers with more verifiable targeting tools, each of these now has a dedicated control.

NEW! **Immunotoxins:** This category can be further divided into those with antibodies that are based on mouse monoclonals (192-Saporin, OX7-SAP, anti-DBH-SAP, ME20.4-SAP), and those with antibodies based on rat monoclonals (Mac-1-SAP, mu p75-SAP).

For the mouse monoclonals, we offer Mouse-IgG-SAP (Cat# IT-18), produced by conjugation of mouse IgG to saporin. Mouse IgG replaces the murine monoclonal IgG that performs the specific targeting, and saporin is used in both. The molecular structure of the two is similar, even to the chemistry of conjugation. The only difference is

the replacement of the targeting agent with mouse IgG that has no target. Figure 1 shows the same lack of targeted cytotoxicity as saporin alone and approximately 1000-fold less than targeted material.

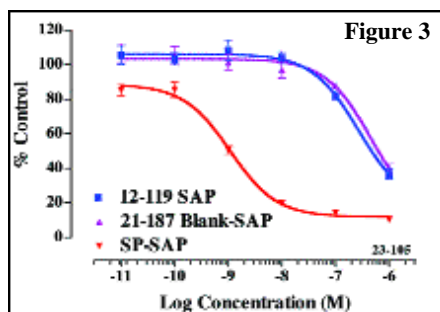


The rat immunotoxins also have a negative control. Rat IgG-SAP, Cat# IT-17, is made with rat IgG coupled to saporin with the same chemistry. Figure 2 shows that rat IgG-SAP has no more cytotoxicity to cells than saporin alone, while the targeted toxin is more than four orders of magnitude more toxic.

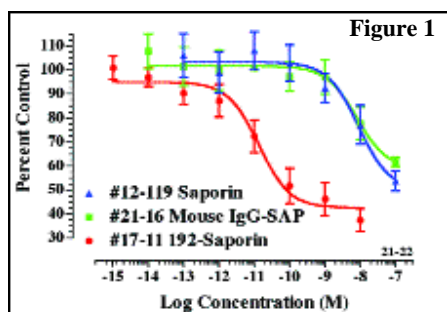
NEW! For the **second immunotoxins** (Mab-ZAP, Rab-ZAP), use Goat IgG-SAP, Cat# IT-19. It works on the same easy principle as Mouse IgG-SAP and Rat IgG-SAP.

NEW! **Ligand-toxins:** Blank-SAP is constructed from a nonsense peptide, a re-arranged alpha melanocyte-stimulating hormone. This sequence

contains amino acids common to the ligands of G protein-coupled receptors, but has no known homology. Like all of our peptide-toxins, it has a 1:1 molar ratio of saporin to peptide, and is void of any free peptide or non-conjugated saporin. It's a perfect match to the peptide ligand-toxins SP-SAP, SSP-SAP, orexin-SAP, dermorphin-SAP, and CRF-SAP. Figure 3 is an illustration of Blank-SAP "shooting blanks" relative to a targeted toxin. The targeted toxin is more than two orders of magnitude more potent than Blank-SAP or saporin alone.



The great thing about these new controls is they are ready to use. You don't have to make strange calculations to figure how much of each component to add; you just use the same amount of control as you do the targeted toxin, and that's it! Couldn't be much simpler.



Targeting Ticklers

Excerpts from "The Ultimate Scientific Dictionary"

As we took notes, our anatomy instructor labored through a lecture on the way nerve cells transmit impulses. "Who can tell me how these cells communicate with one another?" he asked, expecting someone to explain the phenomenon of neurotransmission. After a few muffled whispers, one student finally spoke up. "With cellular phones?"

Targeting Teaser Winners

Congratulations to the puzzle solvers from our last newsletter. Each winner receives \$100 credit towards research product purchases from Advanced Targeting Systems.

The solution to the puzzle was:

Jumbles: HEPARAN FLASK SYRINGE ROBOTICS

Answer: What the scientist forgot to add to the formula --- A PINCH OF SALT

WINNERS: Lynn Young, RW Johnson PRI * Dr. Eduardo Colombari, Unifesp-Epm * Dr. Robert Speth, Washington State University

