

Targeting Tools: Featured Products

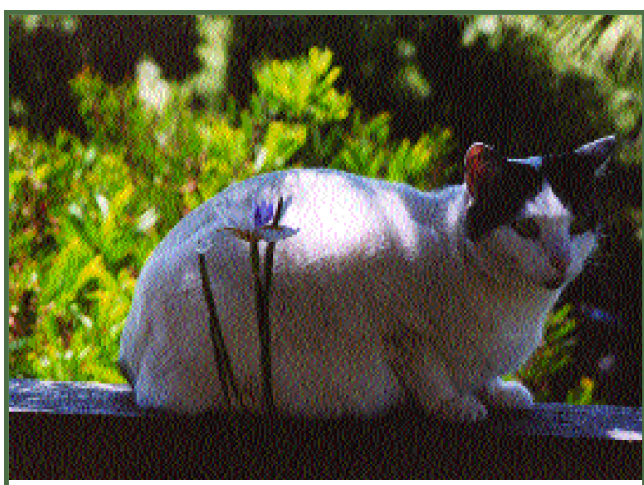
Avidinylated-SAP

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

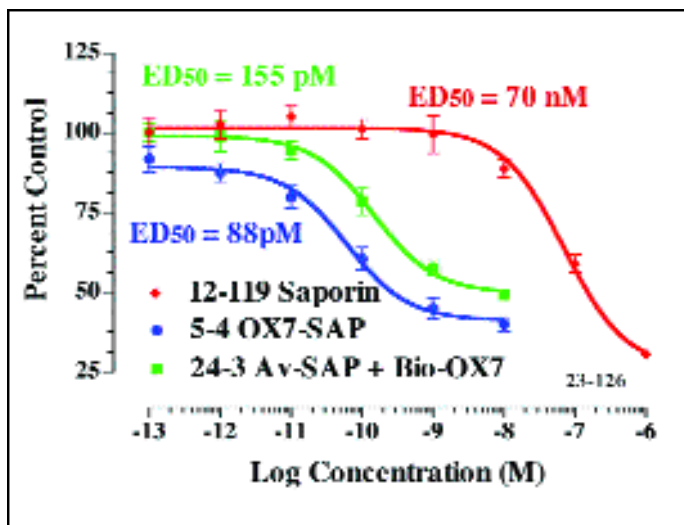
Avidin is a glycoprotein found in egg white and in tissues of birds, reptiles, and amphibians. This protein is composed of four subunits, each of which can bind one molecule of biotin. Biotin, a 244-dalton vitamin found in tissue and blood, binds with high affinity to avidin. In fact, the avidin-biotin interaction is the strongest known noncovalent biological interaction ($K_a = 10^{15} M^{-1}$) between protein and ligand. The bond formation between avidin and biotin is rapid and essentially non-reversible, unaffected by most extremes of pH, organic solvents, and denaturing reagents. Extensive chemical modification has little effect on the activity of avidin, and biotin's small size allows it to be conjugated to many proteins without significantly altering the biological activity of the protein. The avidin-biotin interaction has found extensive use as a research tool. A variety of molecules, including lectins, proteins, and antibodies, can be biotinylated and reacted with avidin-labeled probes or other detection reagents for use in biological assays.

Effective Tool

Using avidinylated SAP and specific targeting agents that have been biotinylated, specific cytotoxins can be created JUST BY MIXING!



Spring is in the air and Gangsta ponders the mysteries of life.



PC12 cells are plated at 5000 cells/well and incubated overnight. Avidinylated-SAP is premixed with biotinylated-OX7 in equimolar concentrations. Saporin, OX7-SAP, and the avidinylated-SAP + biotinylated-OX7 mixture are then added in 10- μ l volumes and the plates are incubated 72 hours. PMS/MTS developing reagent is added and the plates are incubated 1-2 hours, then read at 490 nm.

Biotinylation Service

\$250 for 2-5 mgs (includes 25 μ g Avidinylated-SAP)

- Step 1:** Send ATS your targeting agent (antibody, lectin, etc.).
- Step 2:** ATS biotinylates your targeting agent and returns it to you with avidinylated-SAP.
- Step 3:** You mix together your biotinylated targeting agent and avidinylated-SAP to specifically eliminate cells that recognize and internalize your targeting agent.

avidinylated-SAP (Cat. # IT-09)
a conjugate of avidin and the ribosome-inactivating protein, saporin
 Converts biotinylated materials into targeted toxins.

Available Individually and as a Kit (with unconjugated saporin)

25 μ g.	\$100 (\$150)
100 μ g.	\$350 (\$450)
250 μ g.	\$778 (\$975)

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

Visit the ATS website for a complete list of products.