Targeting Tools: New Internalization Kit and Beta-Testing

ZAP Biotin-Z Internalization Kit

Targeted conjugates are widely used to escort payloads to specific cell populations *in vitro* and *in vivo* for both basic research and pharmaceutical development. Desirable traits of a Targeting Agent include high specificity and rapid internalization. The Targeting Agent can be an antibody, peptide, protein, or any other molecule that recognizes a cell-surface marker.

The ZAP products allow a large number of targeting agents to be screened quickly and cost-efficiently for specificity, functional binding, internalization, and EC50 determination. The **NEW ZAP Biotin-Z Internalization Kits** are constructed using streptavidin (for use with biotinylated targeting agents), chemically attached to Saporin, the most potent of the plant ribosome-inactivating proteins.

ZAP products are combined with Targeting Candidates and collectively applied to plated cells. Once the materials have been administered, the targeting molecule directs the ZAP to the cells of interest, the complex is bound by the targeted cells, internalized, and the Saporin protein is released within the cytosol to inactivate the ribosomes, causing cell death. Cells not expressing the target are not affected.

The **NEW ZAP Biotin-Z Internalization Kit** contains all of the materials needed to screen your biotinylated targeting agent. Included in the kit are Streptavidin-ZAP, controls, and developing reagents for an *in vitro* assay. The user provides only the materials specific to their experiment (the biotinylated targeting agent, cells expressing the target, and culture reagents). An additional benefit of the biotin-streptavidin connection is that these conjugates can be used in an *in vivo* environment as well. For those customers who need biotin attached to a targeting candidate, ATS provides a biotinylation service. The biotinylated targeting agent will be returned to the customer with one of our Biotin-Z kits for no additional charge.

NEW! Beta-Testing Program

ATS is pleased to announce Beta-release of a wide array of targeted toxins for use in eliminating specific cell types. This Beta-Testing Program will make new conjugates available to our customers sooner.
Each of the Beta products will have:

1. Saporin activity confirmed,
2. Peptide sequences published/confirmed, and/or
3. Antibody binding specificity published/confirmed.

Beta Products have not been characterized or reported in scientific literature. This provides researchers with special Beta-pricing ($50 for 25 micrograms) and the opportunity to be the first to publish using the material. The researcher who first publishes data will receive a $500 credit for use on ATS products.

Data submitted will be reviewed by the scientific team at ATS. If data is sufficient to prove specific activity of Beta material in either *in vivo* or *in vitro* conditions, the Beta Tester will be informed and product credit will be awarded to the first Beta Tester to publish.

Check the website for a current list of Beta-Test Products, and check back each quarter as new products are released in *Targeting Trends*.

Doug plays his clarinet and Kermit peeks out of the basket.