

# Targeting Tools: New ZAP Kit and Anti-CD44-SAP



## ZAP SrB Development Kit

The ZAP Sulforhodamine B (SrB; Cat. #KIT-SrB-Z) Development kit contains all of the materials needed to introduce a quantitative staining assay to your lab. Preferred by the National Cancer Institute for high-throughput drug screening, SrB quantitatively stains cellular proteins in an accurate and reproducible manner. Refined and honed over years of use in testing Saporin-conjugate products, the ZAP SrB kit makes development of cytotoxicity assays efficient, time-flexible, and incredibly consistent. Sulforhodamine B is easily detectable with standard optical plate readers capable of readout between 550-580 nm. Each ZAP SrB kit comes with enough reagents for 1000 tests.



The ZAP Sulforhodamine B (SRB) assay is used for cell density determination, much like MTS, MTT, or XTT. However, rather than measuring cell metabolism, the SrB assay is based on the measurement of cellular protein content. The ZAP SrB Kit and protocol are optimized for the toxicity screening of compounds to adherent cells in a 96-well format. After incubation, cell monolayers are fixed and stained, after which the excess dye is removed. The protein-bound dye is solubilized for OD determination at 564 nm using a microplate reader. The SRB assay provides a colorimetric end point that is visible to the naked eye. In addition, SrB is indefinitely stable; meaning the stain can be applied to the protein, washed and dried, and then left for weeks before resolubilizing and reading in a plate reader. The end point is also non-destructive because the stain is all that is resolubilized, the protein remains fixed to the plate so that the procedure may be repeated again and again. The ZAP SrB Development Kit provides a sensitive measure of drug-induced cytotoxicity, is useful in quantitating clonogenicity, proliferation, and is well suited to high-volume, automated drug screening.



## Anti-CD44-SAP

This targeted toxin is a conjugate of a mouse-specific CD44 antibody (clone IM7) and the ribosome-inactivating protein, Saporin. Anti-CD44-SAP (Cat. #IT-72) eliminates murine cells that express all isoforms of the CD44 receptor.

CD44 is a receptor for hyaluronic acid and also interacts with other ligands, such as osteopontin, collagens, and matrix metalloproteinases. CD44 participates in a wide variety of cellular functions such as lymphocyte activation, recirculation and homing, hematopoieses, and tumor metastasis. CD44 has been considered an activity marker and potential novel therapeutic target in multiple sclerosis and is associated with relapses in non-small cell lung cancers.

## Beta-Testing Program

### Nociceptin-SAP

*Eliminates nociceptin-receptor expressing cells.*

### Octreotide-SAP

*Eliminates cells that express somatostatin receptors.*

### Azido-ZAP

*Combines with an alkyne-containing molecule in a click chemistry reaction to eliminate molecules containing a free alkyne group.*

Beta Products have not been characterized or reported in scientific literature. This provides researchers with special Beta-pricing 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.



**Kermit practices CPR on his tiger friend.**