

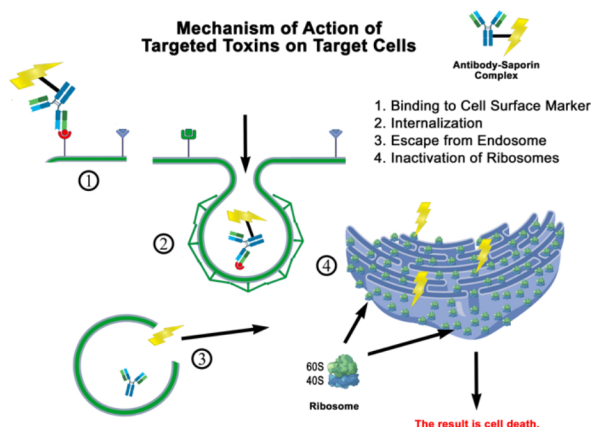
CELL TARGETING SOLUTIONS

ATS scientists produce, test and support the use of targeting tools to identify, label, or deplete specific cell types.

What cells do you want to target?

MOLECULAR SURGERY FOR SCIENTISTS

Advanced Targeting Systems' technology is a modification of one of the most widely used techniques in science: lesioning of a region by surgical means and observation of the effect.



Saporin has no way of entering a cell on its own, except by bulk-phase endocytosis. To be effective, Saporin is bound to a targeting molecule: something recognized on the cell surface and internalized. Once Saporin is taken inside the cell it inactivates the ribosomes, shutting down protein synthesis and causing cell death.

Cell Targeting & Depletion

Advanced Targeting Systems

Targeted Toxins
Secondary ZAP Conjugates
Control Conjugates
Saporin
Antibodies
Custom Conjugations



Advanced Targeting Systems (ATS) is a California-based biotechnology company dedicated to providing quality targeting reagents and services for scientific research and pharmaceutical development.

- Antibody-Drug Conjugates (ADCs)
- Cell-based Assays
- Antibody Screening Kits and Services
- Custom conjugations:
 - Saporin or your payload
 - Biotin
 - Fluorescent tags



Scan the code to find out more about our internalization kits!

Products and Services
available worldwide.

ATSbio.com

Cell targeting solutions to accelerate your research.

SPECIFICALLY ELIMINATE CELLS BASED ON
CELL SURFACE EXPRESSION.

TARGETING SOLUTIONS

- TARGETED TOXINS
- SECONDARY CONJUGATES
- CONTROL CONJUGATES
- ANTIBODIES

The 'toxin' in Advanced Targeting Systems' conjugates is the ribosome-inactivating protein, Saporin. Saporin is obtained from the seeds of the Soapwort plant (*Saponaria officinalis*), a plant that grows wildly in Britain and other parts of Europe. Saporin has no known specificity; it is escorted into a cell by a targeting agent that is recognized on the cell surface and internalized. Upon internalization, the ribosomes are inactivated, resulting in cell death. When conjugated to a targeting agent it becomes a molecular scalpel. Unconjugated Saporin can also serve as a control.

Innovative cell-based solutions

MOLECULE SCREENING - *IN VITRO*

Secondary ZAP conjugates are non-targeted saporin conjugates that "piggyback" on to your primary targeting agent. Upon binding to its receptor, the conjugate is internalized causing cell death. Cells that do not have the cell surface marker are not affected. Antibody Internalization Kits contain a secondary antibody conjugated to Saporin. It uses your primary antibody to target and eliminate cells.

Available species:

alpaca/llama IgG	chicken IgY
goat IgG	guinea pig IgG
human IgG/IgM	mouse IgG/ IgM
rabbit IgG	rat IgG

IN VIVO APPLICATIONS

Saporin conjugates are used *in vivo* to determine what impact a particular cell has on behavior or disease. Depleting a particular cell based on extracellular expression of a marker reveals important information about what function that cell plays. Create an animal model that is reliable and available for testing in just TWO WEEKS! Browse our online catalog for 50 different Saporin conjugates ready to go. Do you have a unique marker to target? No problem. ATS will biotinylate your targeting agent and mix it with Streptavidin-Saporin to personalize your targeted toxin.



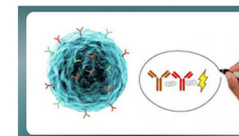
Available in:
French
German
Italian
Japanese
Korean
Mandarin
Portuguese
Spanish

CUSTOM SERVICES

- **Saporin Conjugation** or (another protein payload) directly to your molecule that recognizes a cell surface marker.
- **Expert biotinylation service** provides the most of effective conjugate while retaining the functionality of each of the components.
- **Fluorescent labeling** – especially useful for screening antibodies for initial binding and internalization prior to use as a targeting agent attached to Saporin for cell depletion.

EXPLAINER VIDEOS

Learn more about the 'Molecular Surgery' technology and the tools available to enhance and accelerate your research.



PRODUCT/ASSAY PROTOCOLS

Many useful protocols and tutorials are available to assist you in the successful completion of your next experiment.



WE WORK WITH SCIENTISTS AROUND THE WORLD. HOW CAN WE HELP YOU?

Visit our website to browse over 2800 references from scientists around the world. Read summaries that include dose and application information that will be helpful in planning your next experiment.