Targeting Talk: Product Q&A

- Q: Our lab is getting ready to begin a project using one of your targeted toxins. We already did a preliminary experiment to try out the material, but we have a couple of questions before we start the larger project. First, do you have any protocols or references for injecting intrathecally?
- A: Thank you for your inquiry. We appreciate the opportunity to get involved in projects before they begin. At Advanced Targeting Systems, we do not do any *in vivo* work, just *in vitro*, however we have collaborated with many fine laboratories that have good experience with intrathecal injections. If you search PubMed with the keywords 'saporin' and 'intrathecal' you will be able to view 36 references that will give you good information on techniques and protocols.

Prior to beginning your project you will want to submit your animal care guidelines to your IACUC committee. Turner *et al.* published an article that will be helpful regarding intrathecal injections.¹

- *Q:* The second question is in two parts: 1) how do we determine the appropriate dose, and 2) how do we know saporin is not killing indiscriminately at that dose?
- A: You should always use a control when determining the appropriate dose. A basic premise of the ATS targeting technology is that if a control (saporin alone or a control conjugate) evokes a response, then the dose is too high. Whenever a new shipment of targeted toxin is received, the proper working dilution should be ascertained before beginning a project. The targeted toxin data sheet states:

"There may be lot-to-lot variation in material; working dilutions must be determined by end user. If

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this is a new lot, assess the proper working dilution before beginning a full experimental protocol."

If you search on the ATS website for the species and route of administration you plan to use, you can look through the quarterly summaries of publications and see the dose that was used for that particular study. That will give you a ballpark range in which to start your dose titration. Just keep in mind: if the control kills cells, the dose is too high.

 Turner *et al.*, Administration of Substances to Laboratory Animals: Routes of Administration and Factors to Consider, J Am Assoc Lab Anim Sci, 50(5): 600–613, 2011.

Q&A Products

Control Conjugates

Blank-CTA for peptide-targeted CTA conjugates (IT-61) Blank-SAP

for peptide-targeted SAP conjugates (IT-21) Fab IgG-SAP

for goat IgG Fab-ZAP secondary conjugates (IT-67) Goat IgG-SAP

for goat IgG-containing immunolesioning agents (IT-19) Human IgG-SAP

for human IgG-containing immunolesioning agents (IT-49) Mouse IgG-SAP

for mouse IgG-containing immunolesioning agents (IT-18) Mouse IgM-SAP

for mouse IgM-containing immunolesioning agents (IT-41) Rabbit IgG-SAP

for rabbit IgG-containing immunolesioning agents (IT-35) Rat IgG-SAP

for rat IgG-containing immunolesioning agents (IT-17)

IgG Quantification by ELISA

FastELISA kits are user-friendly and optimized for monoclonal antibody production monitoring, clone selection, murine IgG isotyping, and contaminant detection.

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No reagent preparation. Results in 30 minutes.



Mouse immunoglobulin isotyping kit (*Cat. #RDB-01*) Mouse IgG quantification kit (*Cat. #RDB-02*) Rat IgG quantification kit (*Cat. #RDB-03*) Human IgG quantification kit (*Cat. #RDB-04*) Bovine IgG quantification kit (*Cat. #RDB-05*) Protein A quantification kit (*Cat. #RDB-06*)

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