

Targeting Talk: *Toxin Safety*

by Dr. Ronald G. Wiley

Q: We're submitting a protocol to our IACUC to use IB4-SAP. We plan to inject the targeted toxin and then sacrifice the animal ten days later. What, if any, are the safety issues here?

A: The only danger to lab personnel from IB4-SAP would be accidental self-injection, and even then, at the doses typically used in rats, it would only produce very localized effects at the injection site.

Once injected into animals, the agent is rapidly rendered inaccessible to anyone else by binding, internalization and eventual catabolism. It is extremely unlikely that intact toxin would ever be excreted or recoverable from the rats. The components of the toxin, IB4 and saporin, by themselves are no toxic threat. We use no special precautions with such rats except appropriate care for whatever neurologic deficits they develop, i.e. foot drop, autotomy, etc.

One caveat: To the best of my knowledge the above statements are accurate, but I do not know of any experimental data that directly addresses the issues. I base my comments on our long experience with similar agents including ricin and volkensin which are much more toxic and unstable.

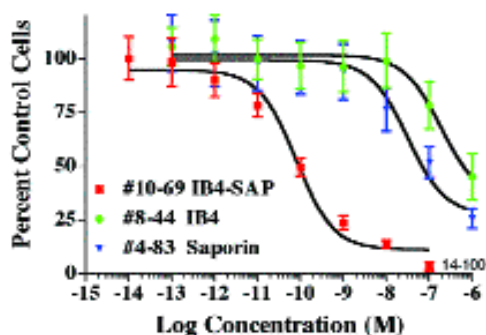


Safety Instructions

Good laboratory technique must be employed for the safe handling of this product. This requires observation of the following practices:

1. Wear appropriate laboratory attire, including lab coat, gloves and safety glasses.
2. Do not pipet by mouth, inhale, ingest or allow product to come into contact with open wounds. Wash thoroughly any part of the body which comes into contact with the product.
3. Avoid accidental autoinjection by exercising extreme care when handling in conjunction with any injection device.
4. This product is intended for research use by qualified personnel only. It is not intended for use in humans or as a diagnostic agent. Advanced Targeting Systems is not liable for any damages resulting from the misuse or handling of this product.

For disposal: autoclave, or expose to 0.2 M NaOH, materials that come into contact with the toxin.



IB4-SAP(Cat. # IT-10)

a chemical conjugate of the B4 lectin [from Griffonia (Bandeiraea) simplicifolia] and the ribosome-inactivating protein saporin
IB4-SAP specifically eliminates α-D-Galactosyl-positive cells.
Excellent for the study of pain transmission