

# Targeting Tools: Featured Products

## Targeting FGF Receptors

FGF-2, or basic fibroblast growth factor, binds all of the FGF receptors with high affinity. We have used this molecule to produce FGF-SAP (Cat. #IT-38), which has a healthy experimental publication record (“FGF” and “saporin” in PubMed: 25 hits). It has been used to clean primary cultures of fibroblasts.<sup>1</sup> It was important in determining the role of smooth muscle cells in restenosis of damaged vasculature.<sup>2</sup> It was widely used *in vivo* for the elimination of FGF receptor-expressing cells, including neuronal cell types,<sup>3</sup> cancer cells,<sup>4</sup> and lens epithelial cells.<sup>5</sup> Figure 1 shows the cytotoxicity of ATS’ rat FGF-SAP conjugate to mouse NIH3T3 cells, with a potent ED<sub>50</sub> of 68 pM. This conjugate will be useful for the study of systems biology.

### References

1. Beattie GM, Lappi DA, Baird A, Hayek A (1990) *Diabetes* 39:1002.
2. Lindner V, Lappi DA, Baird A, Majack RA, Reidy MA (1991) *Circulation Res* 68:106.
3. Gonzalez AM, Lappi DA, Buscaglia ML, Carman LS, Gage FH, Baird A (1991) *Ann NY Acad Sci* 638:442.
4. Beitz JG, Davol-Lewis P, Clark JW, Kato J, Medina M, Frackelton AR, Lappi DA, Baird A, Calabresi P (1992) *Cancer Res* 52:227.
5. David T, Tassin J, Lappi DA, Baird A, Courtois Y (1992) *J Cell Physiol* 153:483.

## Anti-AChR (mAb 35) Rat Monoclonal

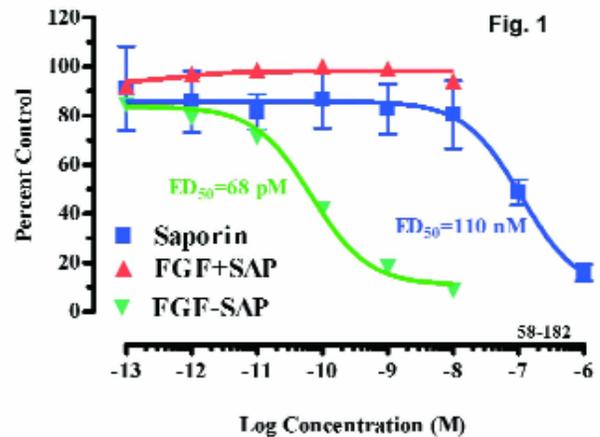
### Species Reactivity: Human, Rat, Mouse, Rabbit

Anti-AChR (Cat. #AB-N36) binds with high affinity to the AChR subtype with 59 kDa ACh-binding subunits, but with considerably lower affinity to the AChR subtype with 75 kDa subunits. Anti-AChR binds to the main immunogenic region on  $\alpha 1$  subunits of muscle-type AChRs.<sup>1</sup>

### Reference

1. Schoepfer R, Halvorsen SW, Conroy WG, Whiting P, Lindstrom J. *FEBS Lett.* 1989 Nov 6;257(2):393-9.

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## SP-CTA (Substance P - Cholera Toxin)

SP-CTA (Cat. #IT-39) is an exciting new tool for use in the research of neurokinin (NK-1) receptor-expressing cells of the central nervous system. A conjugate of the substance P molecule and the catalytic subunit of Cholera toxin, this product can be used very effectively *in vivo* for increasing sensitization of these neuronal cells. Selectively targeting the NK-1r-expressing cells with the substance P moiety allows the researcher to stimulate only the cells of interest by amplifying their cAMP production with the CTA, without altering the neighboring cells. This effect lasts for a few days, and gives the researcher an opportunity to study behaviors such as those related to the perception of pain or the control of breathing.

