**Supplementary figures i-vii**

Targeted disruption of cocaine-activated accumbens neurons prevents context-specific sensitization

Eisuke Koya[1], Sam A. Golden[1], Brandon K. Harvey[1], Danielle H. Guez[1], Alexander Berkow[1], Danielle E. Simmons[1], Jennifer M. Bossert[1], Sunila G. Nair[1], Jamie L. Uejima[1], Marcelo T. Marin[1], Timothy Mitchell[1], David Farquhar[2], Sukhen Ghosh[2], Brandi J. Mattson[1], Bruce T. Hope[1,3]

[1]Behavioral Neuroscience Branch, IRP/NIDA/NIH/DHHS, 251 Bayview Drive, Baltimore, MD 21224, USA
[2]Department of Experimental Therapeutics, University of Texas M.D. Anderson Cancer Center, 1515 Holcombe Blvd., Houston TX 77030, USA

[3]Correspondence should be addressed to:
Dr. Bruce T. Hope
Behavioral Neuroscience Branch
IRP/NIDA/NIH
251 Bayview Drive
Baltimore, MD 21224
Tel: 443-740-2825
Fax: 443-740-2827
E-mail: bhope@intra.nida.nih.gov

**Figure i**

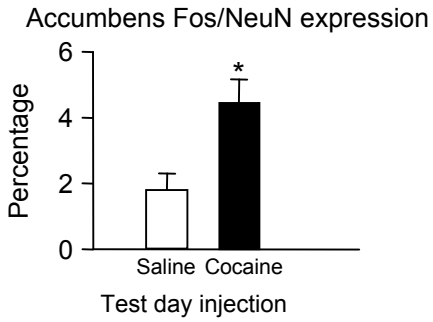


Figure i: Cocaine test injections increase the percentage of Fos-labeled nuclei in nucleus accumbens of sensitized wild-type rats. Values are expressed as mean±SEM percentage of Fos-labeled nuclei over NeuN-labeled nuclei (n=4). * Different from saline, $p<0.05$. Sample image is shown in Figure 1E.

**Figure ii**

X-gal histochemistry of β-galactosidase

Figure ii: Cocaine-induced β-galactosidase in nucleus accumbens of *c-fos-lacZ* rats visualized using X-gal histochemistry. Dark blue ovals indicate β-galactosidase-labeled nuclei.

**Figure iii**

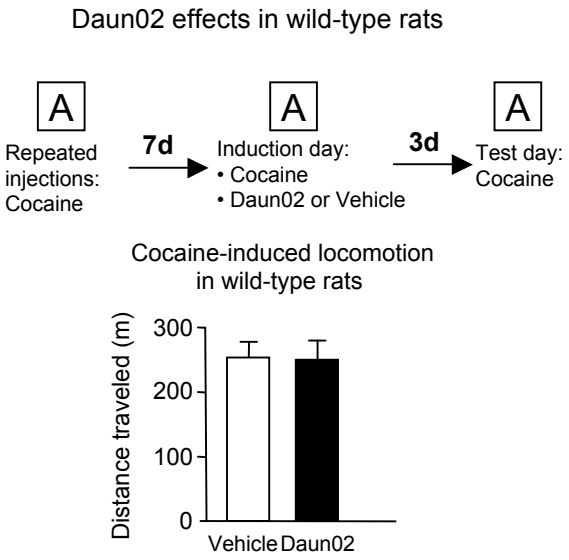


Figure iii: Daun02 on induction day did not attenuate subsequent cocaine-induced locomotor activity in wild-type rats on test day. Values are expressed as mean±SEM distance traveled during 1 h following cocaine test injections (n=11).

**Figure iv**

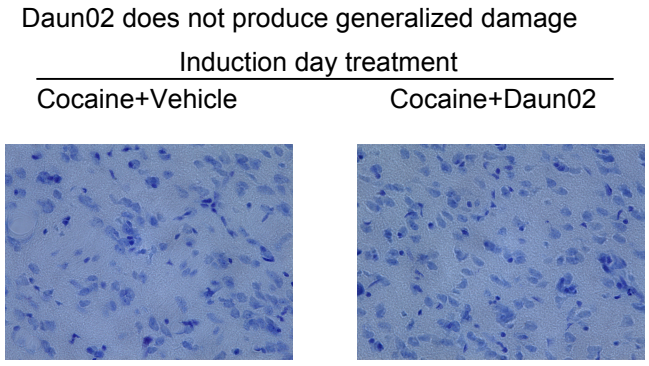


Figure iv: Cresyl violet staining of nucleus accumbens obtained on test day after prior treatment with cocaine and either Daun02 or vehicle on induction day in *c-fos-lacZ rats* from Experiment 2. Daun02 does not produce generalized damage in the nucleus accumbens.

**Figure v**

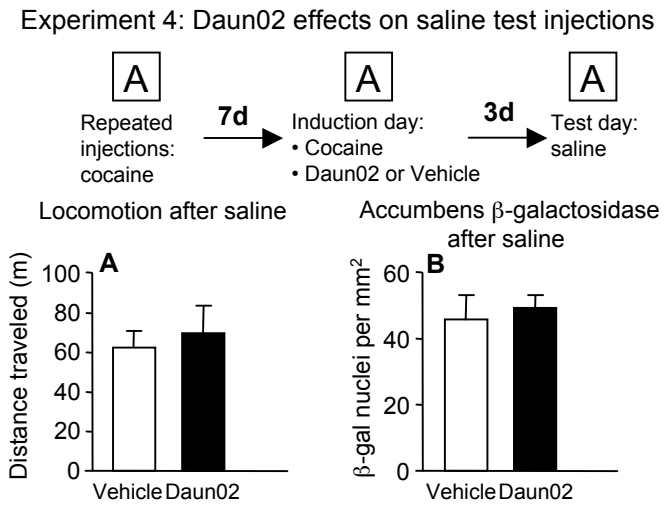


Figure v: Experiment 4: Daun02 did not alter locomotor activity (A) or β-galactosidase expression (B) in nucleus accumbens of *c-fos-lacZ* rats following saline test injections. Values are expressed as mean±SEM distance traveled during 1 h following test injections (n=7-9) and mean±SEM density of β-galactosidase-labeled nuclei in nucleus accumbens (n=5-7).

**Figure vi**

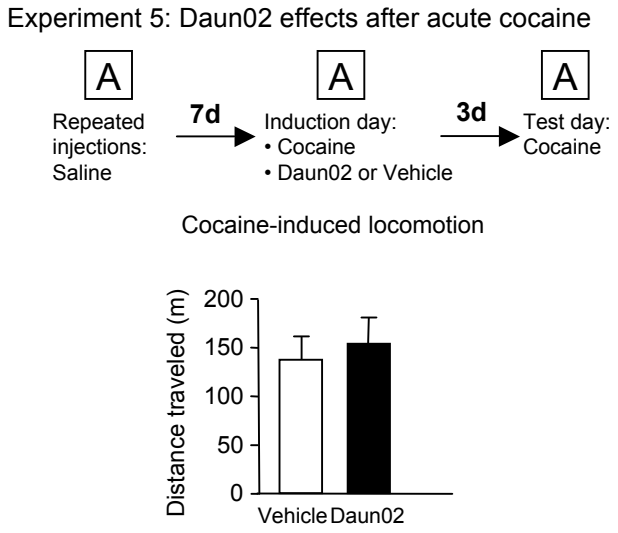


Figure vi: Experiment 5: Daun02 did not alter cocaine-induced locomotor activity on test day in *c-fos-lacZ* rats previously injected on induction day with acute cocaine prior to Daun02 infusions. Values are expressed as mean±SEM distance traveled during 1 h following test injections (n=7-9).

**Figure vii**


Figure vii: Nucleus accumbens infusion sites for Daun02 or vehicle in rats used for Experiment 2. Similar patterns of infusion sites were observed for Experiments 3-6. Drawings of coronal sections are adapted from Paxinos and Watson[40].