

Dharmacon™ siRNA in vivo references

A selection of publications demonstrating Dharmacon siRNA for in vivo applications:

1. R.H.E. Chong, E. Gonzalez-Gonzalez, *et al.* Gene silencing following siRNA delivery to skin via coated steel microneedles: *In vitro* and *in vivo* proof-of-concept. *Journal of Controlled Release* **166**(3), 211-219 (2013).
•Dharmacon™ Accell™ siRNA delivered by microneedle treatment to paws (mouse)
2. C. Cheng, R. Haasdijk, *et al.* Endothelial cell-specific FGD5 involvement in vascular pruning defines neovessel fate in mice. *Circulation* **125**(25), 3142-3158 (2012).
•Accell siRNA delivered by intravitreal injections into the eye (mouse)
3. H. Nakajima, T. Kubo, *et al.* A rapid, targeted, neuron-selective, in vivo knockdown following a single intracerebroventricular injection of a novel chemically modified siRNA in the adult rat brain. *J. Biotechnol.* **157**(2), 326-333 (2012).
•Accell siRNA delivered by injection into the cortical region of the brain (rat)
4. P.A. Singleton, T. Mirzapozova, *et al.* High-molecular-weight hyaluronan is a novel inhibitor of pulmonary vascular leakiness. *Am. J. Physiol. Lung. Cell Mol. Physiol.* **299**, L639-L651 (2010).
•Dharmacon™ siSTABLE™ siRNA delivered by intrajugular ACE antibody-conjugated liposomal delivery (mouse)
5. M. Snapyan, M. Lemasson, *et al.* Vasculature guides migrating neuronal precursors in the adult mammalian forebrain via brain-derived neurotrophic factor signaling. *J. Neuroscience* **29**(13), 4172-4188 (2009).
•siSTABLE siRNA using 7s osmotic pump into carotid artery (mouse)
6. H. Watanabe, H. Saito, *et al.* Activation of phosphatidylinositol-3 kinase regulates pancreatic duodenal Homeobox-1 in duct cells during pancreatic regeneration. *Pancreas* **36**(2):153-159 (2008).
•siSTABLE siRNA delivered by hydrodynamic tail vein injection (mouse)
7. S.D. Larson, L.N. Jackson, *et al.* Effectiveness of siRNA uptake in target tissues by various delivery methods. *Surgery* **142**(2), 262-269 (2007).
•Fluorescent-labeled siRNA; a comparison of delivery by hydrodynamic IV injection, standard IV injection, intraperitoneal administration and rectal administration (mouse)
8. N.C. Henderson, A.C. Mackintosh, *et al.* Galectin-3 regulates myofibroblast activation and hepatic fibrosis. *Proc. Natl. Acad. Sci. U S A* **103**(13), 5060-5065 (2006).
•siSTABLE siRNA delivered by hydrodynamic tail vein injection (mouse)
9. A. DiFeo, F. Huang *et al.* KLF6-SV1 Is a Novel Antiapoptotic Protein That Targets the BH3-Only Protein NOXA for Degradation and Whose Inhibition Extends Survival in an Ovarian Cancer Model. *Cancer Research* **69**, 4733-41 (2009)
•Accell siRNA delivered to tumor via intraperitoneal injection (mouse)
10. MP Zafra, C. Mazzeo *et al.* Gene Silencing of SOCS3 by siRNA Intranasal Delivery Inhibits Asthma Phenotype in Mice. *PLOS ONE* **9**(3) 1-11 (2014)
•Accell siRNA delivered intranasally to lungs (mouse)
11. H. Xu, TW. Rosler *et al.* Tau Silencing by siRNA in the P301S Mouse Model of Tauopathy. *Current Gene Therapy* **14**, 343-351 (2014)
•Accell siRNA delivered via intracerebral stereotactic injection to brain (mouse)
12. K.A. Mitchnick, S. Creighton, *et al.* Differential contributions of de novo and maintenance DNA methyltransferases to object memory processing in the rat hippocampus and perirhinal cortex—a double dissociation. *European Journal of Neuroscience*, 1-14 (2014)
•Accell siRNA delivered via intracranial cannula infusion (rat)
13. Lei Huang *et al.* Phosphoinositide 3- Kinase Gamma Contributes to Neuroinflammation in a Rat model of Surgical Brain Injury. *The Journal of Neuroscience*, **35**(29): 10390-10401 (2015) [rat brain, intracerebroventricular administration]
14. Hidemitsu Nakajima *et al.* Nuclear-translocated Glyceraldehyde-3-phosphate Dehydrogenase Promotes Poly(ADP-ribose) Polymerase Activation during Oxidative/Nitrosative Stress in Stroke. *The Journal of Biological Chemistry*, Vol. 290 No. 23 (14493-14503)(2015) [rat brain— intracerebroventricular injection] monocytic cells. *J. Leukoc. Biology* **91**, 599-607 (2012) [monocytes]

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