



iPRECIO[®]

The first programmable, implantable, and refillable infusion pump for small animal models.

Accuracy

- Conduct chronic infusion studies while assuring subjects are receiving accurate infusion rates on pre-determined schedules
- With better than +/-5% accuracy for infusion, iPRECIO offers improved accuracy over alternatives

Implantable

- Animals are freely moving during drug infusion studies lasting up to six months
- Reduce infection risk and stress in study animals

Programmable

- Program simple or complex infusion protocols prior to study start
- Choose constant or variable flow rates to optimize your infusion protocol
- Specify the infusion start time to ensure that adequate recovery or washout periods take place according to study protocol

Refillable

- Percutaneously accessible port
- Refill multiple times while *in vivo*, eliminating the need for additional surgeries, pumps or animals
- Refill iPRECIO with multiple drugs, concentrations of drugs, or vehicles while implanted

iPRECIO Applications Include:

- Dose escalation studies
- Pharmacokinetic and tolerance studies
- Test multiple drugs/vehicles within one animal
- Circadian infusion studies
- Use in conjunction with telemetry, plus more!



Scientific References

iPRECIO

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Refined rat pharmacology studies with infusion using implantable pumps.

DSI User Group Meeting, Paris, France; March 17th 18th 2011

Osborn J., presenter; Fink G., discussant

Implantable infusion pumps for chronic rodent studies.

Workshop: Rodent Instrumentation Workshop M. Knuepfer, Experimental Biology, Washington DC.; April 9th to 13th 2011

Perron J., Frenette V., and Copeman C.

Validation and use of the iPRECIO® Micro Infusion Pump on GLP studies

Society of Toxicology Annual Meeting, San Francisco, United States, March 11th to 14th 2012.

Schnell C. and Ferrat T.

Use of novel programmable pump for intracranial administration in an orthotopic glioblastoma tumor model in rats.

DSI User Group Meeting, Paris, France; March 17th 18th 2011

Tan T., Watts S. W. and Davis R. P.

Drug delivery: enabling technology for drug discovery and development. iPRECIO Micro Infusion Pump: programmable, refillable, and implantable.

Front. Pharmacol. 2:44. doi: 10.3389/fphar.2011.00044

iPRECIO and Telemetry

Jay Gizzi, Theodore Baird, Kyle O'Donohue, Josh Yoder, Jessica Grenwis, and Heather Bogie

Optimization of a fully implantable small animal infusion model involving multi-pressure data collection.

FASEB J. 2010 24:lb571 [Abstract in the FASEB Journal]

Patrick Davis, Gregory D Fink, Bridget Seitz, and Stephanie W Watts

Serotonin infusion via the iPrecio® micro infusion pump results in repeated reductions in blood pressure in the normotensive Sprague Dawley rat.

FASEB J. 2010 24:lb551 [Abstract in the FASEB Journal]

Zaretsky D.V., Zaretskaia M.V., Durant P.J., Rusyniak D.E.

The use of microinfusion pump to perform intrahypothalamic injections in conscious rats.

Neuroscience 2012, New Orleans, USA., October 13th - 17 2012.

