

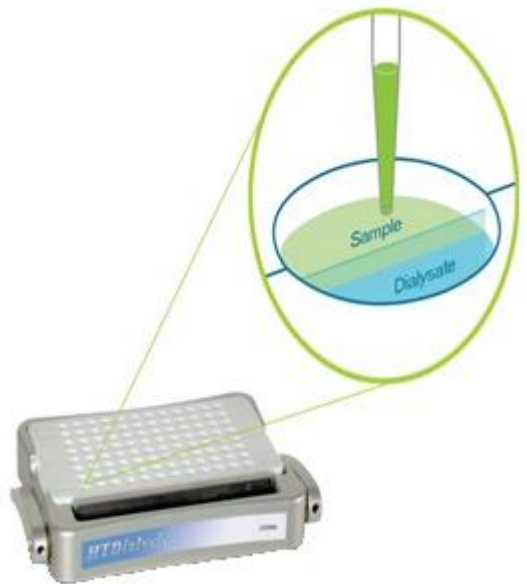
For over 10 years the HTD96B has been used by leading Pharmaceutical and Biotechnology companies as well as Universities across the world

Common Applications

- Tissue Binding
- Drug Partitioning
- Receptor Binding
- Serum / Plasma Binding
- Microsome Protein Binding
- T4 Free Fraction Determination

Key Features

- **100% Teflon construction** ensures minimal non-specific binding to the apparatus
- **Automation compatible:** Assay 1-96 samples simultaneously with ready access to both sample and dialysate from the open top of the wells
- **Cost effective operation:** At 34 cents an assay the HTD96b has the lowest cost of operation on the market



Cost Comparison	Price/Assay
HTD96b	\$0.34
Avg. Competitor	\$6.50

Recent publications utilizing the HTD96 Equilibrium Dialysis System

Development of Functionally Selective, Small Molecule Agonists at Kappa Opioid Receptors J. Biol. Chem. 2013 288: 36703-36716 Lei Zhou, Kimberly M. Lovell, Kevin J. Frankowski, Stephen R. Slauson, Angela M. Phillips, John M. Streicher, Edward Stahl, Cullen L. Schmid, Peter Hodder, Franck Madoux, Michael D. Cameron, Thomas E. Priszano, Jeffrey Aubé, Laura M. Bohn **Departments of Molecular Therapeutics and Neuroscience, The Scripps Research Institute**

Discovery and structure–activity relationship of 1,3-cyclohexyl amide derivatives as novel mGluR5 negative allosteric modulators Bioorganic & Medicinal Chemistry Letters, Volume 23, Issue 5, 1 March 2013, Pages 1398-1406 Hao Zhou, Sidney W. Topiol, Michel Grenon, Hermogenes N. Jimenez, Michelle A. Uberti, Daniel G. Smith, Robbin M. Brodbeck, Gamini Chandrasena, Henrik Pedersen, Jens Christian Madsen, Darío Doller, Guiying Li **Discovery Chemistry & DMPK, Lundbeck Research USA**

Preclinical Characterization of GS-9669, a Thumb Site II Inhibitor of the Hepatitis C Virus NS5B Polymerase Antimicrob Agents Chemother. 2013 February; 57(2): 804–810 Martijn Fenaux, Stacey Eng, Stephanie A. Leavitt, Yu-Jen Lee, Eric M. Mabery, Yang Tian, Daniel Byun, Eda Canales, Michael O. Clarke, Edward Doerffler, Scott E. Lazerwith, Willard Lew, Qi Liu, Michael Mertzman, Philip Morganelli, Lianhong Xu, Hong Ye, Jennifer Zhang, Mike Matles, Bernard P. Murray, Judy Mwangi, Jingyu Zhang, Ahmad Hashash, Steve H. Krawczyk, Alison M. Bidgood, Todd C. Appleby, and William J. Watkins **Gilead Sciences, Foster City, California, USA**

Targeting the PI3K Pathway in the Brain—Efficacy of a PI3K Inhibitor Optimized to Cross the Blood–Brain Barrier Clin Cancer Res November 15, 2012 18; 62391. Laurent Salphati, Timothy P. Heffron, Bruno Aliche, Merry Nishimura, Kai Barck, Richard A. Carano, Jonathan Cheong, Kyle A. Edgar, Joan Greve, Samir Kharbanda, Hartmut Koeppen, Shari Lau, Leslie B. Lee, Jodie Pang, Emile G. Plise, Jenny L. Pokorny, Hani Bou Reslan, Jann N. Sarkaria, Jeffrey J. Wallin, Xiaolin Zhang, Stephen E. Gould, Alan G. Olivero, and Heidi S. Phillips **Genentech Inc, South San Francisco, California and Mayo Clinic, Rochester NY**

Effect of Ritonavir on 99mTechnetium–Mebrofenin Disposition in Humans: A Semi-PBPK Modeling and In Vitro Approach to Predict Transporter-Mediated DDIs CPT Pharmacometrics Syst Pharmacol. 2013 January; 2(1): e20. N D Pfeifer, S L Goss, B Swift, G Ghibellini, 1 M Ivanovic, W D Heizer, L M Gangarosa, and K L R Brouwer **University of North Carolina at Chapel Hill**

Relative Contributions of Norepinephrine and Serotonin Transporters to Antinociceptive Synergy between Monoamine Reuptake Inhibitors and Morphine in the Rat Formalin Model PLoS ONE 8(9): e74891 (2013) Fei Shen¹, Pamela R. Tsuruda, Jacqueline A. M. Smith, Glenmar P. Obedencio, William J. Martin **Departments of Pharmacology, Molecular and Cell Biology Theravance Inc., South San Francisco, California**

Selected publications utilizing the HTD96 Equilibrium Dialysis System

An Integrated Bioanalytical Platform for Supporting High-throughput Serum Protein Binding Screening Rapid Communications in Mass Spectrometry Volume 24, Issue 24, pages 3593–3601, December 2010 Jun Zhang, Wilson Z. Shou, Marianne Vath , Kasia Kieltyka , Jennifer Maloney, Larry Elvebak, Jeremy Stewart, John Herbst and Harold N. Weller **Applied Biotechnology, Bristol-Myers Squibb, Wallingford, CT 06492, USA**

Semi-Automated Protein Binding Methodology Using Equilibrium Dialysis and A Novel Mixed-Matrix Cassette Approach Journal of Pharmaceutical Sciences, Vol. 99, 5070–5078 (2010) Emile G. Plise, Daniel Tran, Laurent Salphati **Drug Metabolism and Pharmacokinetics Department, Automation and Assay Technology, Genentech, Inc., South San Francisco**

Plasma / Serum Protein Binding Determinations Current Drug Metabolism, 2008, 9, 854-859 Michael J. Banker and Tracey H. Clark **Pharmaceutical R&D, Pfizer Global Research & Development, Groton, Connecticut**

Pharmacokinetics and Pharmacodynamics of Seven Opioids in P-Glycoprotein-Competent Mice: Assessment of Unbound Brain EC_{50,u} and Correlation of in Vitro, Preclinical, and Clinical Data JPET October 2007 vol. 323 no. 1 346-355 J. Cory Kalvass, Emily R. Olson, Michael P. Cassidy, Dana E. Selley and Gary M. Pollack **School of Pharmacy, University of North Carolina at Chapel Hill, Chapel Hill**

Relationship Between Exposure and Nonspecific Binding of Thirty-three Central Nervous System Drugs in Mice DMD January 2005 vol. 33 no. 1 175-181 Tristan S. Maurer, Demetria B. DeBartolo, David A. Tess and Dennis O. Scott **Pharmacokinetics, Pharmacodynamics and Drug Metabolism, Pfizer Global Research and Development, Groton, Connecticut**

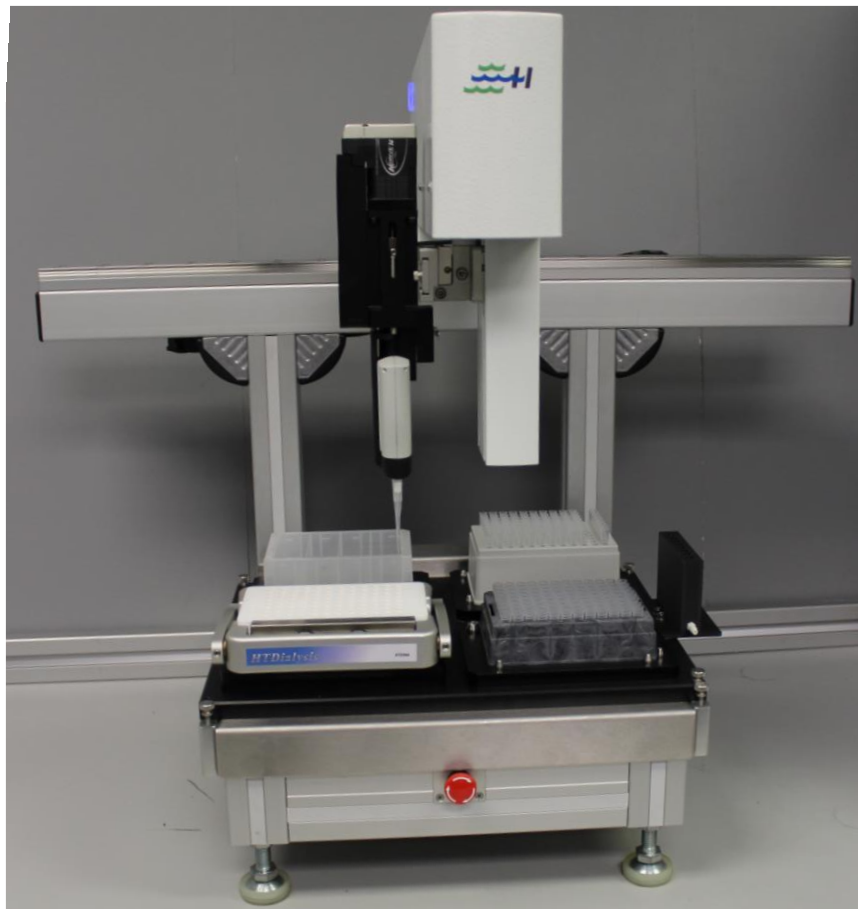
Influence of Nonspecific Brain and Plasma Binding on CNS Exposure: Implications For Rational Drug Discovery. Biopharm. Drug Dispos. 2002;23:327–338. Kalvass J.C., &Maurer T.S. **Department of Pharmacokinetics, Dynamics and Metabolism, Pfizer Global Research and Development, Groton, CT**

Impact of Nonspecific Binding to Microsomes and Phospholipids on the Inhibition of Cytochrome p4502d6: Implications for Relating In Vitro Inhibition Data to In Vivo Drug Interactions Drug Metab Dispos 2003 31: 606-611. Jeannine M. Margolis and R. Scott Obach **Pharmacokinetics, Pharmacodynamics, and Drug Metabolism, Pfizer Global Research and Development, Groton, Connecticut**

Development and Validation of a 96-Well Equilibrium Dialysis Apparatus for Measuring Plasma Protein Binding Journal of Pharmaceutical Sciences, vol. 92, no. 5, May 2003 Michael J. Banker, Tracey H. Clark, John A. Williams **Pharmaceutical R&D, Pfizer Global Research & Development, Groton, Connecticut**



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