BioAssay Systems
3191 CORPORATE PLACE
HAYWARD, CA 94545. U. S. A

TEL: 510. 782. 9988
FAX: 510. 782. 1588
www.bioassaysys.com
info@bioassaysys.com

Solubility Testing – Filter Plate Method

Summary

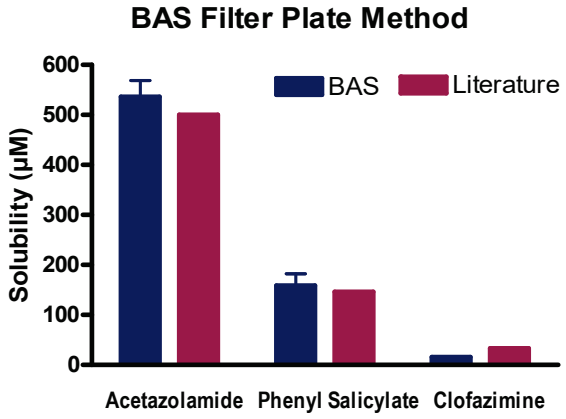
The solubility of a drug compound plays a significant role in absorption and is an important factor to consider during development. Quantitative measurement of compound solubility is an ideal early test to perform when screening for potential drug candidates.

BioAssay Systems (BAS) offers two methods for quantifying the solubility of drug compounds: filter plate solubility testing and shake flask solubility testing. This information page details the Filter Plate Method.

Method

In MultiScreen filter plate, the compound is mixed with a solvent of customer's choice. The plate is gently shaken for 1.5 hours at ambient temperature (or desired temperature). The solution is vacuum filtered. Absorbance spectrum is run on the filtrate together with the test compound standards. Concentration of the filtrate is calculated using the slope of the standards.

Examples



BAS Filter Plate Method (n = 3)	
Drug Tested	**Avg ± SD (µM)**
Acetazolamide	537 ± 56
Phenyl Salicylate	159 ± 42
Clofazimine	16 ± 1

Figure 1: Drug compound solubility determined using the filter plate method. Testing was repeated three times on separate days. Experimentally determined solubility of drug compounds using the filter plate method were compared to literature values.[1]

Literature

1. Pan, L. et al. (2000). Comparison of Chromatographic and Spectroscopic Methods Used to Rank Compounds for Aqueous Solubility. J. Pharm. Sci. 90:4, 521-529.