


Abstract

The Journey towards Solubility Assessment of Small Molecules Using HPLC-DAD [†]

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Abstract: In the process of developing bioactive small molecules, solubility determination is a crucial step. Many research papers treating problems related to solubility are published, but none of them fully describes the methods and steps for solubility assessment. In addition, in silico prediction tools and databases such as SwissADME, ACD/Percepta, DrugBank and many others offer the possibility to have approximative solubility values based on the structure of the molecule. Although significant differences can be observed depending on the database and the conditions of the experiment such as solvent, pH, temperature . . . etc. The lack of data can be a barrier to obtaining details on solubility measurement methods. This presentation aims to describe, step by step, the journey of tryptophan solubility determination using high-performance liquid chromatography-diode array detector (HPLC-DAD).

Keywords: HPLC; in silico prediction; shake-flask; small molecules; solubility



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