Techniques to prepare a 0.05% solution from a tablet for HPLC injection – How to

Preparation of a 0.05% solution for HPLC injections depends on the pharmaceutical tablet strength *(dosage)* and how much volume of diluent you use. In most cases we would recommend using your intended starting HPLC mobile phase as the diluent.

The drug tablet should first be ground using a mortar and pestle and then dispersed in a diluent *(solvent and or buffer solutions)* and sonicated using an ultra-sonic bath or vortexer, until the tablet is thoroughly dissolved. You can dilute again if needed to get a concentration of 0.05% using standard dilution techniques.

You should then use a 0.45um syringe filter *(discard the first 1-2mL of filtrate to remove undissolved particles to protect your instrument if not using an AQ brand syringe filter)* and the subsequent filtrate would typically go into an autosampler vial for injections.

When referring to a solution extract from a solid sample such as a tablet, a percent in this case is often implied to mean w/v *(weight/total volume).* You should use a volumetric flask to get the most accurate volume.

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