ChromaDex™

Tech Tip 0003

Recovery and Dilution Procedures

ChromaDex™ reference standards are supplied in the powder, crystal, liquid, or oily form. This can present a recovery challenge when the material clings to the insides of the sample bottle. Proper handling is especially important with small amounts where a greater percentage of the sample may be clinging to the sides of the bottle, screw cap or stopper. Please note that ChromaDex™ does not recommend vial scraping because sample recovery will be quite low. The following procedure for sample handling will allow for the greatest recoveries and proper dilution.

Please note: Oily or liquid standards can be difficult to see and the bottle may appear empty. Examples of such oily standards are: Gingerol, Pinane, Shogaol, Rosin and Acetoxy Valerenic Acid.

Proper Sample Recovery and Dilution Procedure:

1. Use a 5 place analytical balance for weighing.
2. Weigh the full sample bottle and screw cap.
3. If the bottle has a stopper and crimp top, remove the aluminum crimp top and weigh the full bottle and stopper.
4. Record the exact weight of the full bottle and cap/stopper, in your laboratory notebook.
5. Add about 1mL of the appropriate solvent to the sample bottle and replace the cap/stopper.
6. Shake the bottle and allow the standard to completely dissolve.
7. Pipette or pour the dissolved standard from the bottle into a volumetric flask. Use an appropriately sized volumetric flask for the sample dilution.
8. Rinse the bottle and cap/stopper into the volumetric flask three times.
9. Completely dry the empty bottle and cap/stopper under nitrogen flow.
10. Weigh the now empty, dried bottle and cap/stopper and record the weight in your laboratory notebook.
11. Partially fill the volumetric flask with the chosen solvent and mix thoroughly. Then dilute to the mark and mix again.
12. Calculate the total weight of standard removed from the vial by subtracting the dry weight from the original weight.
13. Calculate the concentration of the diluted standard by dividing the calculated standard weight (from step 12) by the volume of the volumetric flask.
14. Consider portioning off your diluted standard into smaller bottles for later use and to prevent contamination of your standard solution.
15. Ideally, store the reference standard solution in a cool, dry place out of light.

Please contact ChromaDex™ with any further questions about proper sample handling specific to your use.

10005 Muirlands Blvd., Suite G • Irvine, CA 92618 • Ph: +1-949-419-0288 • Fx: +1-949-419-0294
Em: sales@chromadex.com • www.chromadex.com