OrgoSol PROTEIN Concentrate™ Kit

INTRODUCTION

The OrgoSol PROTEIN *Concentration*™ kit is based on precipitation of protein in a proprietary combination of organic solvents. The kit has been specifically developed for efficient precipitation of protein solution with a minimal disruption to the protein structure and thus maintaining biological activity of most proteins. This kit is therefore suitable for concentration of protein solutions where maintaining biological activity is essential.

Since proteins have unique structures and properties as well as co-factor requirements for biological activity, it is therefore recommended that a test is ran before using this kit.

APPLICATIONS: For concentration of protein solutions where maintaining biological activities is essential. Suitable for concentration of a total of 5ml protein solution, either single or multiple procedures.

ITEMS SUPPLIED: **Cat# 786-125**

OrgoSol Buffer	50ml
SEED	300µl

STORAGE CONDITIONS

Shipped at Ambient Temperature. Store at Room Temp upon arrival. OrgoSol Buffer can be stored at –20°C.

ADDITIONAL ITEMS NEEDED

Refrigerated centrifuge and centrifuge tubes.

PROTOCOLS

Important Note*: OrgoSol Buffer must be chilled at -20°C for at least 1hr before use. Perform the entire procedure in cold unless specified otherwise.*

1. Transfer an appropriate volume of OrgoSol Buffer (maintained at -20°C) to a centrifuge tube. (For each 1ml of protein solution use 10ml OrgoSol Buffer). Transfer the centrifuge tube to the -20°C freezer cabinet and incubate for 20 minutes.

2. Prepare the protein solution to be concentrated. Add the protein solution (1ml protein solution per 10ml OrgoSol Buffer) into the OrgoSol Buffer in the centrifuge tube and immediately invert the tube a few times to mix the contents. Add 5µl SEED and invert the tube a few times.

3. Immediately, transfer the tube to the -20°C freezer cabinet. Incubate the tube for 3h at -20°C.

4. At the end of the incubation period, centrifuge the tube in a refrigerated centrifuge at 15,000xg for 15 minutes at 1-4°C (or a lower temperature if possible).

5. Immediately after the centrifuge stops remove the tube from the centrifuge and pour off the supernatant in a beaker. Invert the tube on a clean paper towel for 5 seconds and then transfer the tube to an ice bucket. NOTE- For safe disposal of the OrgoSol buffer, mix with 10-volumes of tap water and then pour into laboratory wash sink.

6. You will notice a white pellet. Air-dry the pellet (5-10 minutes). After drying, the pellet turns from white to translucent. NOTE- do not over dry the pellets- parched dry pellets may be difficult to dissolve.

7. Resuspend the protein pellet in an appropriate buffer. The buffer must contain all of the components and co-factors necessary for protein solubilization and activity.

8. Incubate the tube in an ice bucket until the protein pellet is fully suspended in solution. Centrifuge the tube for 2 minutes. Transfer the clear protein solution to a clean tube. The protein solution is now ready for use.

LU 12.14.05