Acetone precipitation of protein

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This procedure is suitable for recovering proteins from most aqueous solvents and from SDS containing buffers. It is not recommended for proteins dissolved in urea or guanidine or for peptides.

Protocol

1. Cool the required volume of acetone to -20°C.

2. Place protein sample in acetone-compatible tube, such as polypropylene and able to hold six times the sample. Screw cap tubes may help minimize sample losses.

3. Add six times the sample volume of cold (-20°C) acetone to the tube.

4. Vortex tube and incubate for 2 hours to overnight minutes at -20°C.

5. Centrifuge 15 minutes at 13,000-15,000 x g at 4°C.

6. Decant and properly dispose of the supernatant, being careful to not dislodge the protein pellet.

7. Briefly wash the pellet with 100ul of cold 90% acetone.

8. Centrifuge 5 minutes at 13,000-15,000 x g at 4°C.

9. Remove sup and repeat if necessary.

10. Air dry for ~15-30 minutes and resuspend in an appropriate buffer.