Acetone Precipitation of Proteins in solution

Acetone precipitation allows protein in a sample that consists of unsuitable buffer components to be precipitated out. This means that further analysis can be done without hindrance of for example, a high urea concentration that would stop the digestive enzyme trypsin from working.

Keep a stock of HPLC grade Acetone at -20°C for this protocol.

1. Add 5 volumes of cold acetone to the protein sample (e.g. 100µl sample + 500µl acetone). Make sure the tube is acetone safe and vortex the mix thoroughly.

2. Incubate for 1hour at -20°C.
3. Spin down the sample at 4°C for 10mins at 13-15000g.

4. Decant the supernatant and air dry the pellet for 5-10mins, DO NOT dry the pellet completely as this will make re-solubilisation difficult.

5. If required, repeat steps 2-4 to ensure removal of all undesired components from the sample.

6. Re-solubilise in desired buffer.