Precipitation Lowry Protein Assay

(Peterson, Anal. Biochem. 83, 346 (1977))

Solutions Needed:

0.15% Deoxycholate in dH_2O
72% Trichloroacetic acid in dH_2O
20% Na_2CO_3
0.2% $CuSO_4$ (pentahydrate) + 0.4% KTartrate
0.8 N NaOH
10% SDS
Folin reagent

Make up fresh each time:

CTC Reagent:
10% Na_2CO_3
0.1% $CuSO_4$
0.2% KTartrate

This solution can be made by diluting equal parts of the Na_2CO_3 stock solution and the 0.2% $CuSO_4$ (pentahydrate) + 0.4% KTartrate solution.

Lowry Mix:
Add equal volumes of
CTC reagent
0.8 N NaOH
10% SDS
dH_2O

Diluted Folin Reagent:
1 part Folin reagent plus 5 parts dH_20

Procedure:

1. Aliquot protein samples into 12 x 75 mm plastic tubes
2. To each tube add water to make up to 1 ml volume
3. Add 100 μl 0.15% DOC
4. Add 100 μl 72% TCA to precipitate protein
5. Pellet the precipitate in a table top centrifuge by spinning for 30 min at 3000 rpm
6. Pour off supernatant and aspirate any remaining droplets of liquid
7. To each tube add:
   - 400 μl Lowry mix
   - 400 μl dH20
   - 200 μl diluted Folin reagent
8. Incubate 30 min at room temperature to allow color development
9. Read samples at 750 nm