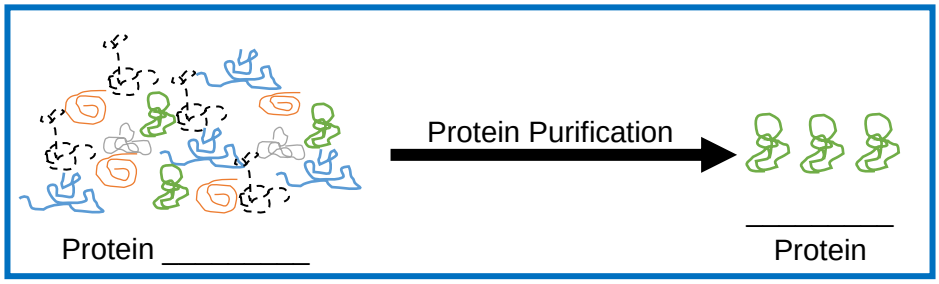
CONCEPT: PROTEIN PURIFICATION

●*Protein purification*: process of _____ a protein of interest so that it's the only batch of protein molecule in solution.

□ _____ techniques are used for protein purification.

□ Purification techniques exploit unique differences in protein properties (ex. _____, _____, polarity, etc.).

EXAMPLE: Protein Purification.



PRACTICE: Which of the following is likely the most appropriate meaning of protein purification?

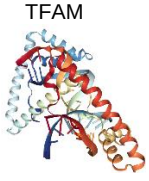
a) Literally isolating only one single protein molecule.
b) Isolating a batch of the same exact protein molecule.
c) Isolating a batch of different protein molecules.
d) Isolating all the proteins of an organism's proteome.

Protein Purification Strategy

●A typical strategy for protein purification consists of sequential use of the following techniques:

Protein Purification Strategy
1. Protein _____.
2. Differential _____.
3. _____ Out.
4. _____.
5. _____.

PRACTICE: A scientist is looking to study a specific protein called mitochondrial transcription factor A (TFAM). Which of the following is the most appropriate sequence of steps for protein purification of TFAM?



a) Extraction → Dialysis → Salting Out → Differential Centrifugation → Chromatography.
b) Extraction → Chromatography → Differential Centrifugation → Salting Out →Dialysis.
c) Extraction → Differential Centrifugation → Salting Out → Dialysis → Chromatography.
d) Extraction → Salting Out → Dialysis → Chromatography → Differential Centrifugation.