MCC Budget Saver Ideas:

Help to get started under a budget

Protein Electrophoresis:

- **Protein ladder** wgMDH has a monomer molecular weight of 34.4 kD. Depending on what you are asking students to do with their protein gels, it may be possible to just use two inexpensive protein markers that bracket this range, such as ovalbumin (42 kD) and myglobin (18 kD).
    - Mb: M0630-250MG, Sigma, $75 (250 mg)
    - OA: A5503-1G, Sigma, $68.20 (1g)

- **Gels** If you make your own, 12% gels work well for MDH. A 500-mL bottle of the 40% acrylamide mix will make ~125 gels. Students can prepare these gels during the laboratory period prior to when they will be needed. Wrap gels in damp paper towels and Saran wrap and store them at 4°C until needed.
    - 40% acrylamide mix: Biorad (161-0146), $81 for 500 mL
    - Tris buffer: 5 kg, T1503-100G, Sigma, $34.20
    - SDS. 25 g. L3771-25G, Sigma, $50.10
    - Ammonium persulfate. 100g. BP179-100. Fisher. $62.50
    - TEMED. 25 mL. T7024-25ml. Sigma, $44.90

- Buffers
    - 4x Laemmli Sample Buffer (4 X Blue Juice)
        - Tris: see above for gels
        - SDS: see above for gels
        - Bromophenol blue: I use Coomassie brilliant blue (see below for stain)
        - Glycerol: 1L, PI17904, Fisher, $154.10
    - 10x Tris/Glycine/SDS for SDS PAGE running buffer
        - Tris: see above for gels
        - SDS: see above for gels
        - Glycine: 500 g, G8898-500G, Sigma, $69.30
- *Coomassie brilliant blue stain: acetic acid, methanol, Coomassie brilliant blue R-250
    - Coomassie brilliant blue R-250. 50g. BP101-50. Fisher. $226
- * Coomassie destain: acetic acid, methanol

*Ref: Molecular Cloning. A laboratory Manual. Sambrook and Russell, CSHL Press