Lab 2 – BSA or BGG protein quantification & standard curve

|  |  |  |
| --- | --- | --- |
| **Reagent/Material** | **Quantity Required** | **Vendor stock #** |
| 96-well plates | 12 | Any that are clear and work with our plate reader |
| 2 mL microtubes | 1 bag of 500 |  |
| Microcentrifuge tube holders/racks | 6 |  |
| 15 mL conical tubes | 1 bag (at least 12 tubes) |  |
| 15 mL conical tube holders/racks | 6 |  |
| Pipettors: all three sizes | 3 sizes of pipettors for each group (6 groups) | will need for other labs |
| Pipettor holders/racks | 6 |  |
| Pipette tips | 1 bag for refill of all 3 pipettor sizes | will need for other labs |
| 100mL beakers | 6 |  |
| Ziploc bags – quart size | 1 box |  |
| Vortexers | 6 |  |
| REAGENT A from Biorad kit - pour 1.0 mL into 6 separate microtubes | 6 – 1.0 mL tubes with reagent A | kit catalog number 500-0111  See preparation of reagents below |
| REAGENT B from Biorad kit - pour 5.0 mL into 6 separate 15mL conical tubes | 6 - 15.0 mL tubes with reagent B | kit catalog number 500-0111  See preparation of reagents below |
| 2 mg/ml BSA stock - pour 3.0 mL of this stock solution into 6 separate 15mL conical tubes | 6 – 15.0 mL tubes with BSA stock | kit catalog number 500-0111  See preparation of reagents below  Reuse protein from previous years if not expired.  You can purchase BGG or BSA – whichever is cheaper |
| 0.9% saline (NaCl) solution in nanopure water | 1 L | will need for other labs  See preparation of reagents below |
| Spectrophotometric plate reader | 1 | Brecken will do: make sure the plate is set up correctly and the protocol is ready. Reserve plate ready for this day/time. |
| Kim wipes | 6 boxes | will need for other labs |
| Sharpies: thick and thin point | 6 of each type |  |
| Grease pencils | 6 |  |
| Gloves – small, medium and large | Several boxes of each size |  |

**Don’t think I will need but have on hand just in case:**

|  |  |  |
| --- | --- | --- |
| Multi-channel pipettors | One of each size | Forbey lab may still be borrowing some of these for GA assay development? Let me know if so. |
| Reservoirs for multichannel solutions | 6 |  |

**Preparation of reagents (Tami, double check my math on these):**

1. 0.9% saline solution:
   1. For 1000mL, dissolve 9 grams of NaCl in 1000ml of nanopure water
2. 2 mg/mL BSA or BGG stock solution in 0.9% saline solution:
   1. For 50mL, dissolve 100mg of BSA or BGG into 50mL of 0.9% saline solution.
3. 10 mg/mL BSA or BGG stock solution in 0.9% saline solution – “Unknown” protein samples:
   1. For 10mL, dissolve 100mg of BSA or BGG into 10mL of 0.9% saline solution.
   2. Aliquot this solution into 6 separate microtubes of 1mL volume each, and label each as “unknown protein concentration”.