

Revised gel analysis assignment for Dyneins (lab on April 23)***Due: 5pm, April 30 (25 points)*****Part I:**

Look over your group's gel, you should be able to distinguish the prestained molecular weight marker (lane 2) as a large blue band at the bottom near the dye front.

Identify your other lanes and see what they look like.

Part II: (to hand in)

1. Look over the 0421_instructors gel. The prestained molecular weight markers you will use are in lane 1.

Sizes are (from top to bottom

66 kD (top thick band)

45 kD (thin band)

36 kD (thick band)

24 kD (thick very dark band)

14 kD (bottom band)

The other lanes are as follows:

2. degraded molecular weight standard
3. partially degraded molecular weight standard
4. 10x whole cells (Superhero group)
5. Cell bodies (Superhero group)
6. Flagellar fraction (Superhero group)
7. Flagellar fraction (Star group)
8. Cell bodies (Star group)
9. 10x whole cells (Star group)
10. degraded molecular weight standard

2. Using ImageJ, and lane 1 as your molecular weight standards, prepare a standard curve. Then pick two other lanes to analyze. For each of these lanes, label the four darkest bands and determine their molecular weights as per the instructions

3. Turn in the following graph and table with good descriptive titles:

- A. The table of data used for calculating the molecular weights of the bands in the samples. This should include a column or a footnote annotating what protein you have assigned to his band ("unknown no. 1" as appropriate)
2. The graph of the standard curve generated from the protein standards and the R_f values (see page 4 of the ImageJ analysis handout).