



2009-2010 SMART Teams Qualification Phase

Task #5

Due: November 5, 2009

Model Design

Design a model that meets the design specifications in the following section (pg 3). Email the script file of your completed model design to Marisela Chevez at m@chevez@scripps.edu. The deadline for submitting your final script file is **November 5th**.

Submit a copy of the SMART Team Model Design Qualification Summary Sheet and checklist by email to Marisela no later than **November 5th**.

We will build your model by the Mentor Match on Nov 7th.

Model Design Specifications

1. PDB file: 3ee9
2. Restrict view to Chain A
3. Alpha-carbon backbone format
4. Design values (You must use these values):
 - a. Backbone 300
 - b. Hbonds 225
 - c. Spacefill 275
 - d. Wireframe 225
 - e. Monitor Lines 225
 - f. Disulfide bonds 225
5. Identify secondary structures with color
6. Add Hbonds to sheets
7. Remove any “triangle” Hbonds
8. Add monitor lines to create a stable physical model
9. Display the sidechains involved in binding TRIM25
 - a. Remember to have a *clean backbone* with your sidechains.

Suggestions

1. Color. When you use color in your model design, we recommend that you make your selections carefully. Do NOT use black, because black does not print well. If you want to highlight a feature, chose a light color on a dark background OR a dark color on a light background. Always select bright or contrasting colors to highlight significant features, and do not use the bright colors on less significant features such as hydrogen bonds or monitor lines.
2. We are here to help you! If you have questions, you may contact us by phone or email.
 - Phone: 858-784-2171
(If we don't answer, leave a message with information on how to contact you.)
 - Email: Marisela Chevez mchevez@scripps.edu

SMART Team Model Design Qualification Summary Sheet and Checklist (email this with your script file)

SMART Team:	
Contact person (if not ST Teacher, please provide email address):	
PDB File:	
Script file name:	
What do the colors in your model indicate? (please be sure to indicate ALL colors in your model, including colors selected for hydrogen bonds and monitor lines)	
What sidechains are displayed and <u>why</u> did you display them?	