To make a comparison between an experimental mean value and the true mean value do the following:

1. From the **Tools** menu select **Data Analysis….**

2. Select **Descriptive Statistics**

3. Click on the box for **Input Range** and highlight the data in your spreadsheet

4. Select the radio button for **Output Range,** click in the associated box, and then click on the spreadsheet cell that will be the upper left cell for the output

5. Check the boxes for **Summary Statistics** and **Confidence Level for Mean** and enter the desired level as a percent (in the example below the confidence level is 99%)

6. Select OK; results will appear in the spreadsheet.

The last line is the confidence interval around your mean value, which in this case is 0.639± 0.001. If the true mean value lies outside of this interval then you have evidence for a significant difference between your mean value and the true mean value at the stated confidence level.

trial	absorbance		*absorbance*	
1	0.639			
2	0.638		Mean	0.639
3	0.640		Standard Error	0.00030861
4	0.639		Median	0.639
5	0.640		Mode	0.639
6	0.639		Standard Deviation	0.0008165
7	0.638		Sample Variance	6.6667E-07
			Kurtosis	-1.2
			Skewness	0
			Range	0.002
			Minimum	0.638
			Maximum	0.64
			Sum	4.473
			Count	7
			Confidence Level(99.0%	0.00114414