

# Image Quant TL manual

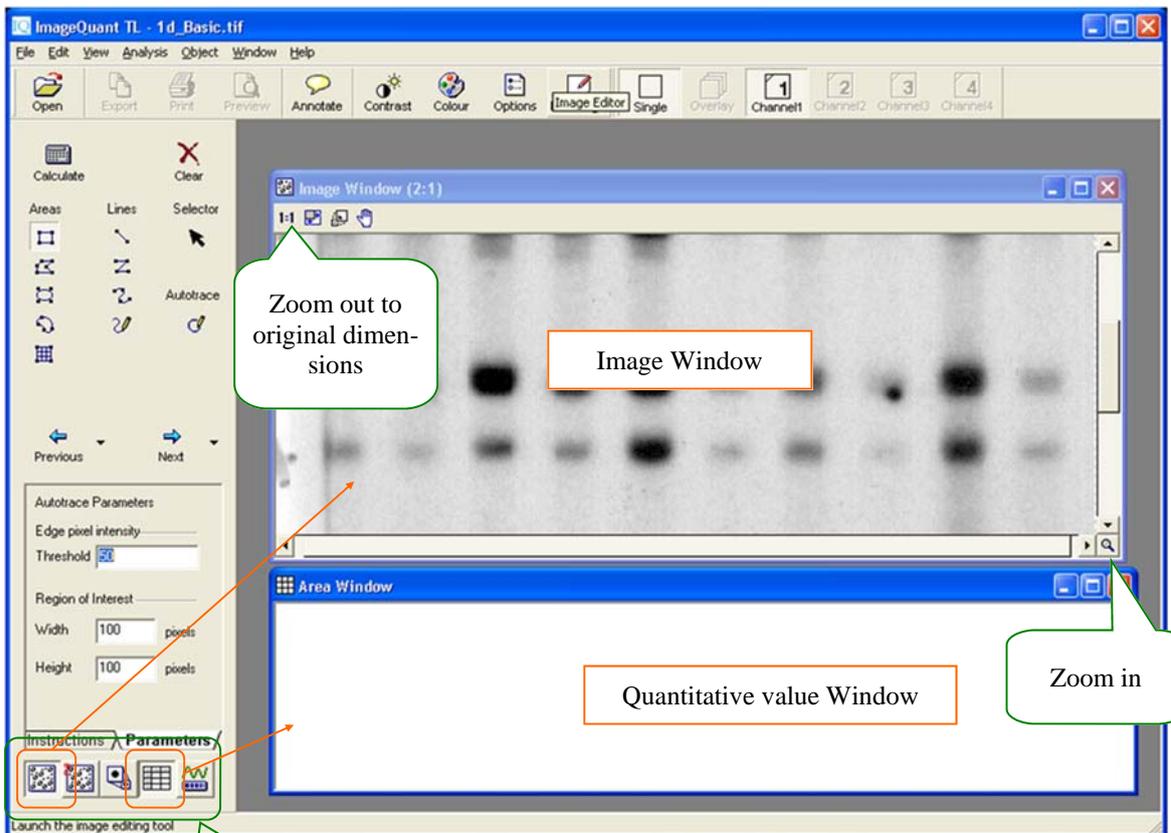
## Analysis of Western Boltting

- ① Click on 'ImageQuant TL' icon, and select 'Analysis Toolbox'.

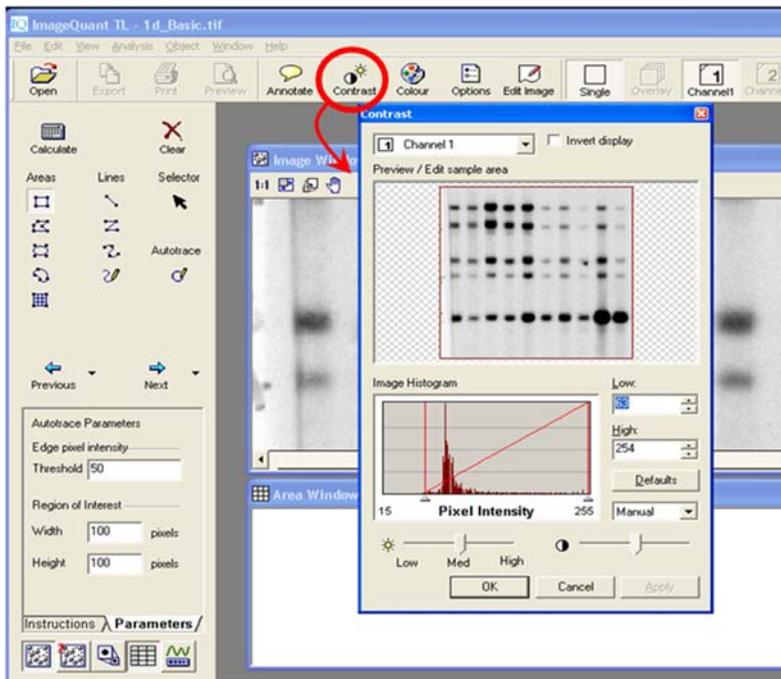


- ② Open an image

Contrast of an image is tuned automatically by this software, but quantitative value is the same as the original one.

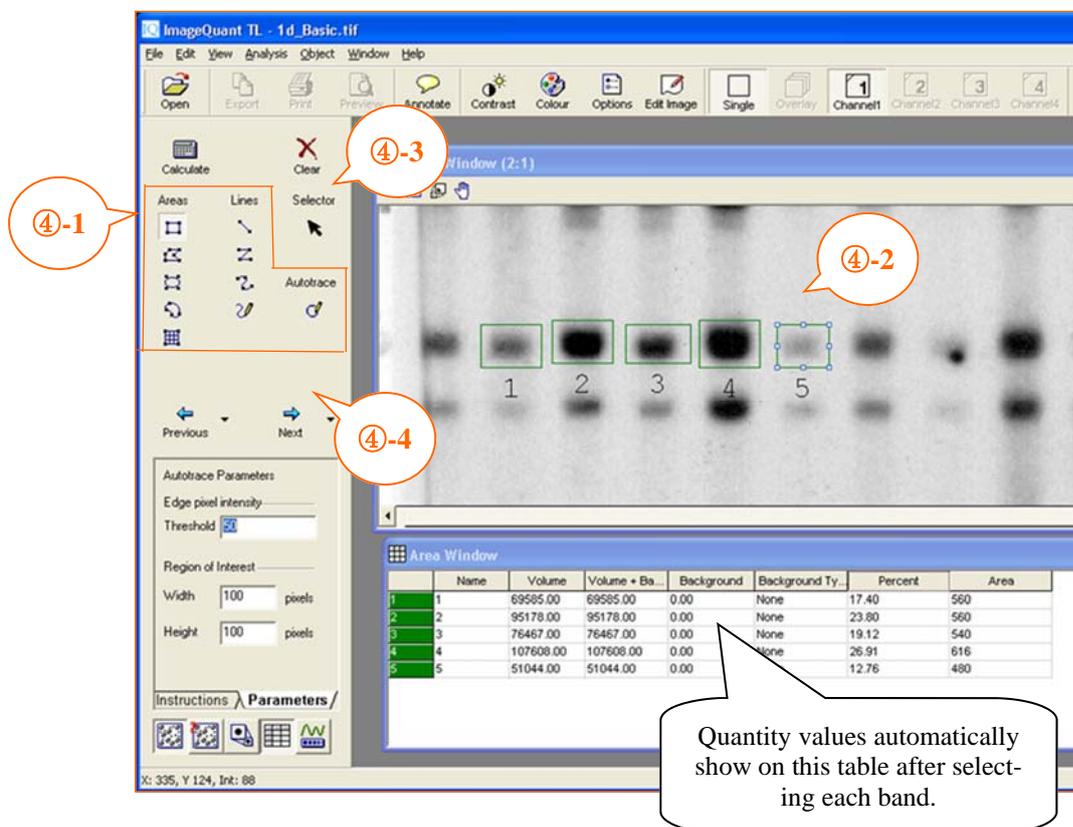


③ Tuning contrast (if necessary)



④ Shape definition

- ④-1 Select a drawing tool from the choice of Areas, Lines or Autotrace in the Navigator.
- ④-2 Drag to create the object on the image window. (Each object is not the same in size.)
- ④-3 Allow you to select objects for editing. Drag through an area to select multiple objects.
- ④-4 Click on Next button.



⑤ Background subtraction

Select a method from the *Parameters* tab.

You can use different methods on different features on the same image.

Methods of background subtraction

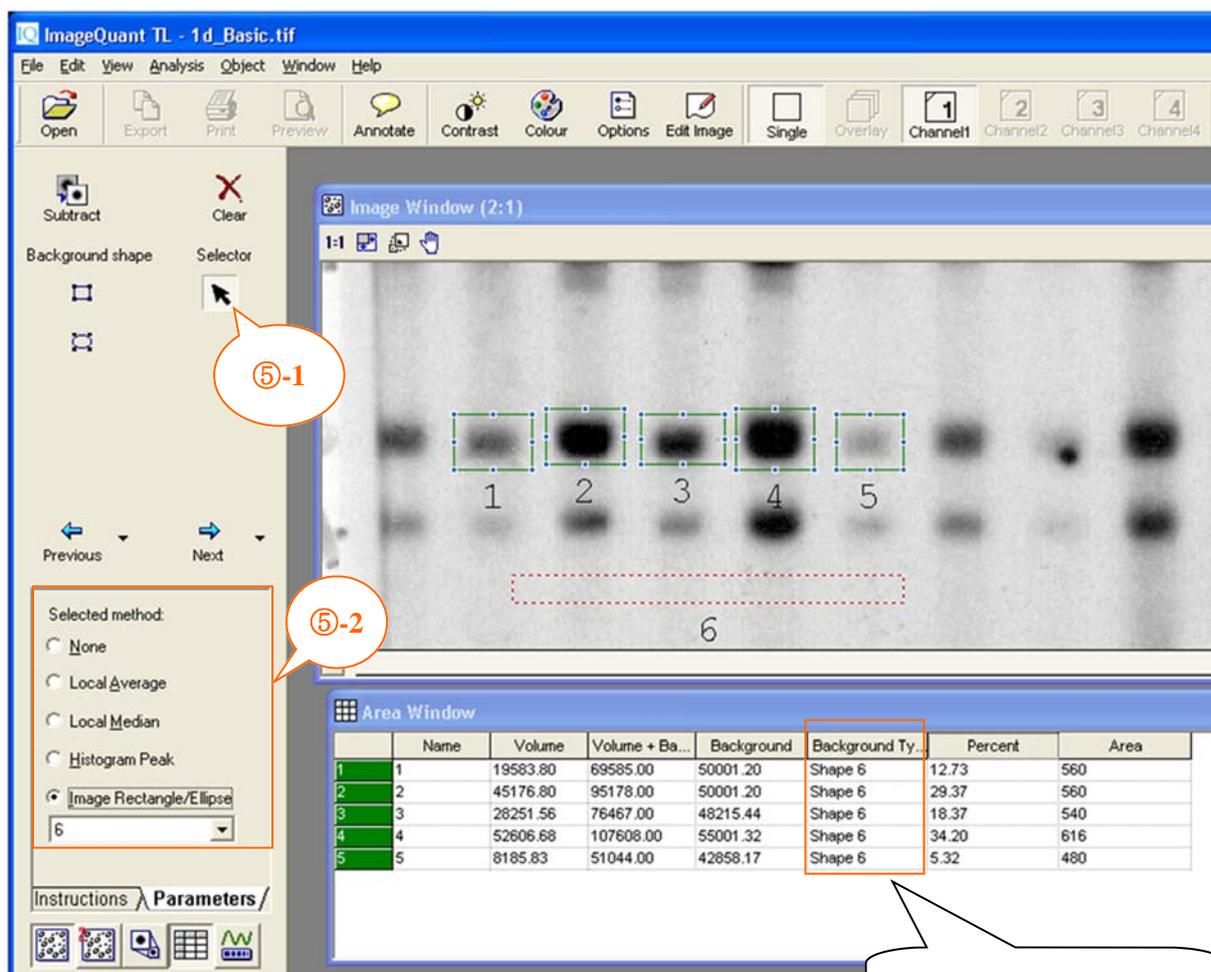
Local Average	The mean value on the line
Local Median	The median value on the line
Histogram Peak	The mode value on the line
Image Rectangle/Ellipse	The volume specified as background

⑤-1 In Selector mode, click the feature that requires background. Choose a method from the *Parameters*.

⑤-2 Configure background type.

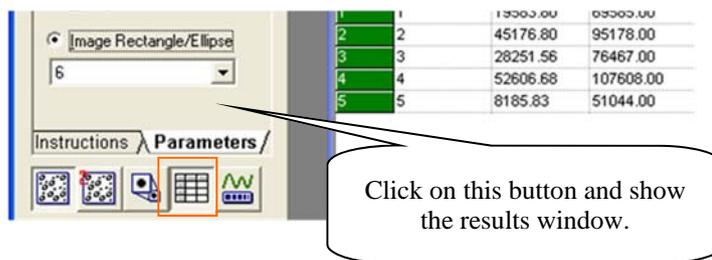
<Image Rectangle method>

- 1) Select **Background shape** and draw an object on the image that represents the background.
- 2) In selector mode, click the features that requires background.
- 3) Select Image Rectangle/Ellipse and the number of background object to apply from drop-down menu.



Check background type

⑤ The results



Volume	Quantitative value after background subtraction
Volume + Background	Total signal intensity in a image rectangle area
Background	Background value corresponding to each area
Background Type	Method for calculating of background
<b>Percent</b>	<b>Percentile value in the dataset of Volume</b>
Area	The size of an area

### Western Blot Analysis

Quantitative value is 'Volume' but using a huge numerical data isn't easy to calculate. Besides Volume is not the same in various exposed method. Present is useful value to analyze.

Compare two or more membranes

Set the sample as a reference, and analyzed by all the membranes. To correct errors between the membranes using it.

⑥ Export results to another file format

- i) Activate results window (image, quantitative value)
- ii) Choose <Edit> <Export to File... >
- iii) Save the file as appropriate name

	File format	Filename extension
Image	BMP format	.bmp
Quantitative value	Text ( tab-delimited)*	.txt

\* Excel can import this file format.