

Ratios, factors and correlations in **figures 3-1 to 3-6** for Krebs buffer validation and **figures 3-8 to 3-13** for serum validation were calculated as follows:

$$\text{Ratio} = \frac{\text{Propranolol area}}{\text{Sildenafil area}}$$

$$\text{Factor} = \frac{1}{\text{Slope}}$$

$$\text{Correlation} = \text{SQRT}(R^2)$$