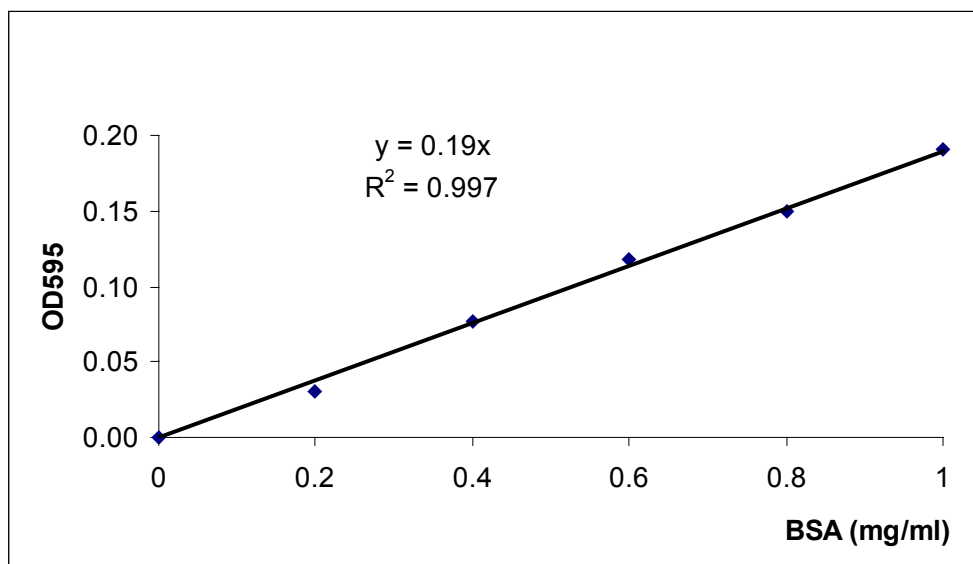


### 1. Standard curve of protein by Bradford method

The stock solution of bovine serum albumin or BSA (1 mg/ml) was diluted to 0.2, 0.4, 0.6, 0.8 and 1.0 mg/ml. The diluent (20  $\mu$ l) was added with 1 ml of dye reagent (1 part dye reagent concentrate with 4 parts deionized water) to each eppendorf and vortex. After incubation at room temperature for 5 min, protein concentrations were monitored by measuring at absorbance at 595 nm in glass or polystyrene cuvettes using a standard curve of BSA. The absorbance had linear correlation with the concentrations of standard BSA and the obtained slope was 0.19 OD<sub>595</sub>/mg/ml.



## 2. Standard curve of 4-methylumbelliferone (4-MU)

Stock solution of 0.1 mM 4-methylumbelliferone (4-MU) was diluted to 0, 1.0, 1.5, 2.0, 2.5 and 3 nmole and were measured with spectrofluorophotometer using excitation wavelength at 355 nm and emission wavelength at 460 nm. The intensity of standard 4-MU measured by spectrofluorophotometer had linear correlation with the amount of standard 4-MU.

