

---

## Supplementary Material

### Formula for the estimation of viral copy number

Copy no. can be calculated by using the formula:

$$\text{Copy No./}\mu\text{L of sample} = \frac{\text{Conc. of Plasmid DNA (gm.}\mu\text{L}^{-1}) \times \text{Avogadro No}}{\text{Molecular wt. of Plasmid}}$$

$$\begin{aligned}\text{Molecular wt. of Plasmid} &= \text{Mol. Wt. of pGEM -T Easy Vector} + \text{Mol. Wt. of NSs gene} \\ &= (\text{Total no. of bases}) \times \text{Mol. Wt. of one base} \times \text{No. of DNA strands} \\ &= (3015\text{bp} + 161\text{bp}) \times 330 \times 2 \\ &= 2,096,160 \text{ g}\end{aligned}$$

$$\begin{aligned}\text{Conc. of Plasmid} &= X \text{ ng.}\mu\text{L}^{-1} \\ &= X \times 10^{-9} \text{ g.}\mu\text{L}^{-1}\end{aligned}$$

$$\text{Copy No./}\mu\text{L of sample} = \frac{X \times 10^{-9} (\text{gm.}\mu\text{L})^{-1} \times 6.023 \times 10^{23}}{2,096,160 \text{ g}}$$