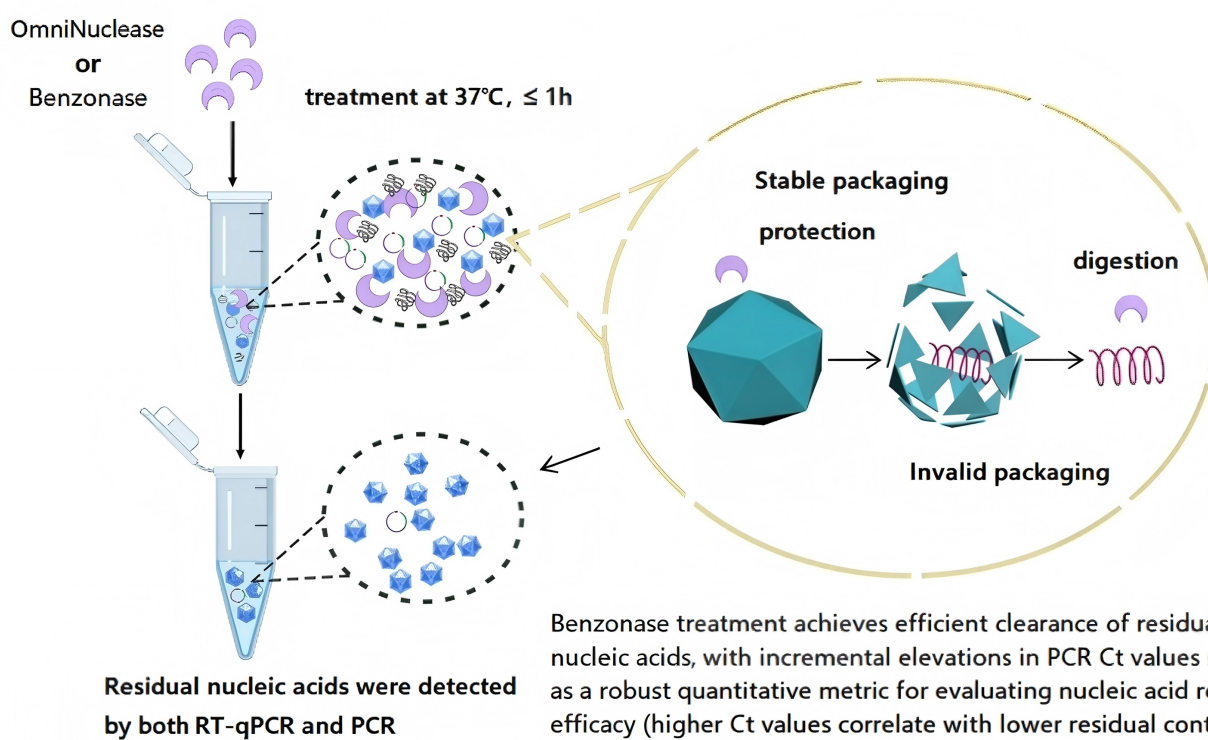




Benzonase treatment achieves efficient clearance of residual nucleic acids, with incremental elevations in PCR Ct values serving as a robust quantitative metric for evaluating nucleic acid removal efficacy (higher Ct values correlate with lower residual content). Simultaneously, RT-qPCR Ct values inversely correlate with the extent of RNA encapsulation within viral-like particles (VLPs), where reduced Ct values signify enhanced packaging efficiency.