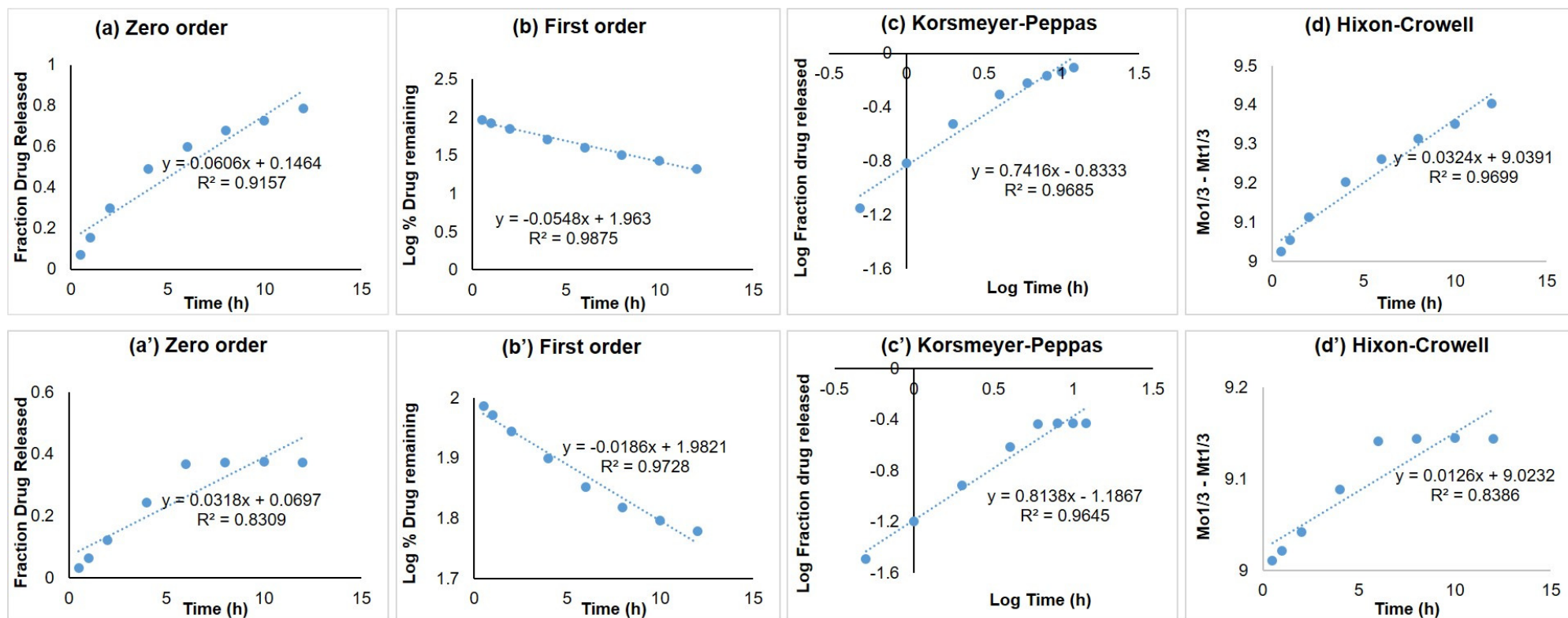


## Supplementary Materials

### Analytical method for TZP assay

A slight modification in the existing HPLC-UV methods [1] was successfully employed to analyse TZP in the samples obtained during *in vitro* experiments. The calibration curve was obtained between the concentrations of TZP ( $\mu\text{g mL}^{-1}$ ) and the area of corresponding peaks obtained by chromatographic analysis. The calibration curve of the drug was found linear in the mentioned concentration ranges ( $0.25\text{-}50\ \mu\text{g mL}^{-1}$ ) with co-efficient of correlation ( $r^2 = 0.9996$ ). The straight-line equation obtained for the calibration data was  $Y = 61528x - 6420$ , where  $Y$  was the peak area for the drug and  $x$  was its concentration. The regression equation was found good to calculate the drug concentrations during *in vitro* experiments.

**Supplementary Figure  
Figure S1**



**Figure S1. Different kinetic model plots for TZP-NC<sub>1</sub> (a, b, c and d) and the plots for conventional aqueous suspension of TZP-pure (a', b', c' and d')**

## References

1. Moaaz, E.M.; Abdel-Moety, E.M.; Rezk, M.R.; Fayed, A.S. Stability-Indicating Determination of Tedizolid Phosphate in the Presence of its Active Form and Possible Degradants. *J Chromatogr Sci* **2021**, 10.1093/chromsci/bmab045, doi:10.1093/chromsci/bmab045.