

# Effect of Different Surfactants on Efficacy Triclosan Against *Escherichia Coli*

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## ABSTRACTS

*Poor bioavailability of new pharmaceutical compounds is the major challenge in drug discovery, which leads to incomplete dissolution into the gastro-intestinal fluids and hence, insufficient oral absorption. Along with other various techniques available to improve the solubility of poorly soluble drugs, surfactants are widely used as complexing agents for lipophilic and amphiphilic substances and functional excipients that have gained widespread use and attention because of their ability to solubilize, and in some instances stabilize, poorly water-soluble drug candidates enabling both oral and parenteral formulation<sup>1</sup>. The nature of surfactant and its concentrations has a significant effect on growth of the microorganisms both individually and in the presence of some antibacterial agent.*

*In this study, we examined effects of different surfactants on solubility and antibacterial activity of triclosan, an antibacterial agent, in aqueous media against Escherichia coli. Three surfactants namely Tween-20, Octyl glucoside, Sodium deoxycholate were used. While some of the surfactants used enhanced the solubility of triclosan but at the same time also masked its antibacterial activity. The details of the results will be presented in the poster.*

## REFERENCES

- [1] M. E. Davis and M. E. Brewster, "Cyclodextrin-based pharmaceuticals: past, present and future," *Nature Reviews Drug Discovery*, vol. 3, no. 12, pp. 1023–1035, 2004.