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## Effect of gellan gum on the thermogelation property and drug release profile of Poloxamer 407 based ophthalmic formulation

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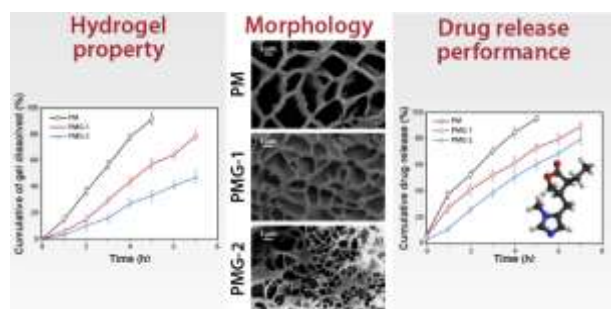
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Graphical Abstract



### Highlights:

- ➤ Gellan gum has a significant effect on the gelation temperature and viscosity of Poloxamer 407.
- ➤ Addition of gellan gum largely decreases the gel dissolution rate of poloxamer 407.
- ➤ Hydrogel has a porous structure and the pore size decreases due to the addition of gellan gum.
- ➤ Presence of gellan gum decreases the drug release rate of poloxamer 407 based ophthalmic formulation.
- ➤ Drug release mechanism is controlled by both diffusion as well as erosion mechanism.

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