

SynBiosys based sustained release formulations

"SynBiosys® is a safe, versatile, biodegradable polymer platform applicable for sustained release formulations of API's from days to months"

The SynBiosys polymers are multi-block copolymers composed of building blocks lactide, glycolide, ε-caprolactone and polyethylene glycol.

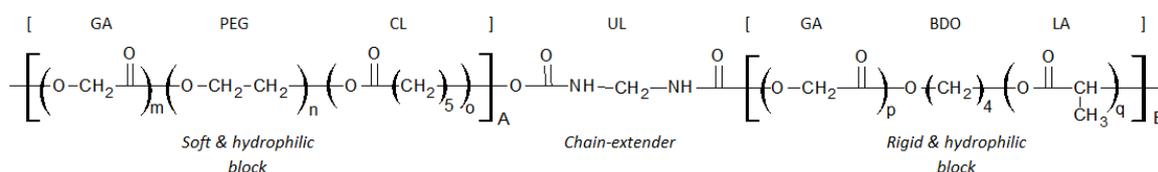
Original compound	Degradation products	Excreted as
Lactide	Lactic acid	CO ₂ and H ₂ O
Glycolide	Glycolic acid	CO ₂ and H ₂ O
Caprolactone	Hydroxy hexanoic acid	Hydroxy hexanoic acid
Polyethylene glycol (PEG)	PEG	PEG
Butanediisocyanate (BDI)	Butanediamine (putrescine), CO ₂ and H ₂ O	Butanediamine, CO ₂ and H ₂ O
Butanediol (BDO)	Butanediol	Butanediol

- ✓ Safe to use polymers
- ✓ Well known building blocks
- ✓ Biodegradable
- ✓ Urinary excretion

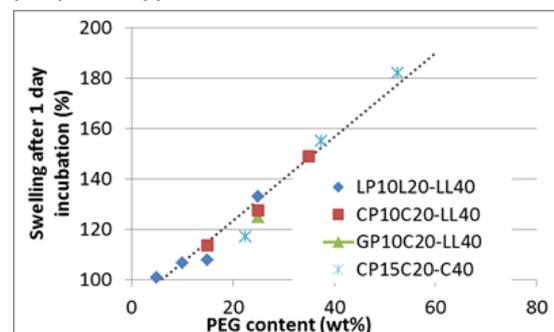
"SynBiosys® has endless versatility"

- ✓ Ample choice of building blocks in the multi-block copolymer
- ✓ Endless possibilities to fine tune water-swellability, polymer degradation and API release
- ✓ SynBiosys is designed to fit the purpose

Example SynBiosys structure:



Robust, linear swelling independent of polymer type:

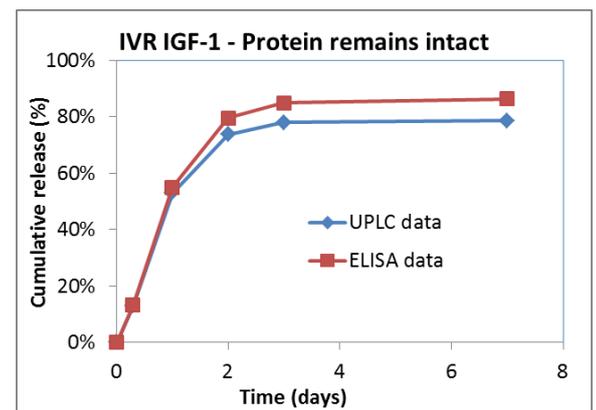
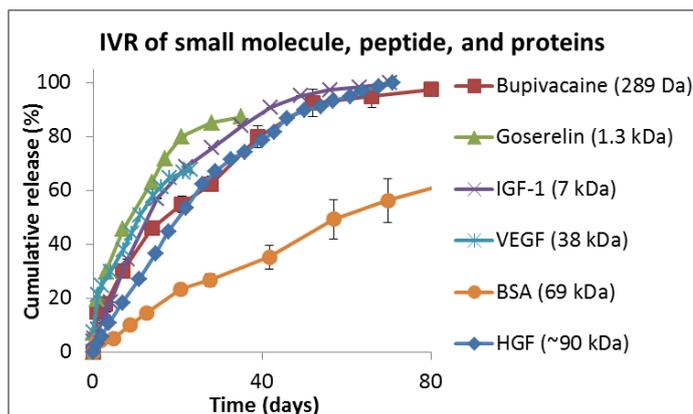
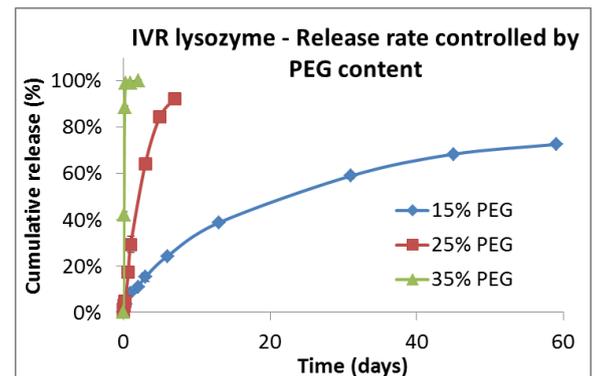


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"SynBiosys® shows excellent release performance"

SynBiosys' versatility and water-swellability enable sustained release.

- ✓ From days to months
- ✓ Supporting small molecules, peptides and specially proteins
- ✓ By diffusion, thus without lag phase
- ✓ Limited or no burst of API



References

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