

Cremophor EL

Cat. No.:	HY-Y1890
CAS No.:	61791-12-6
Target:	Biochemical Assay Reagents
Pathway:	Others
Storage:	4°C, protect from light

Cremophor EL

SOLVENT & SOLUBILITY

In Vitro	Ethanol : 50 mg/mL (Need ultrasonic) H ₂ O : 25 mg/mL (Need ultrasonic)
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BIOLOGICAL ACTIVITY

Description	Cremophor EL, a polyoxyethylene castor oil derivative, is a nonionic surfactant. Cremophor EL is widely employed to improve dissolution and delivery of agents ^[1] .
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In Vitro	Cremophor EL is a widely used excipient. In the first 10 h, Cremophor EL at 5 mg/mL increases the impedance, then decreases it, and after 20 h of treatment, epithelial cell death is detected. Cremophor EL decreases cell viability and increases cell toxicity more than RH40. Both epithelial viability and monolayer integrity are seriously impaired at 10 to 50 mg/mL concentrations of Cremophor EL at 24-h treatment. Cremophor EL also enhances cell detachment ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
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PROTOCOL

Cell Assay ^[1]	Cell viability is determined by double fluorescent staining: bis-benzimide labels all cell nuclei, ethidium-homodimer-1 stains only dead cells. For morphological examinations, primary brain endothelial cells with tight barrier properties are used. Cells grown on glass coverslips are treated with Cremophor EL and RH40 for 1 and 24 h. Cremophor EL and RH40 are tested at 0.1 to 50 mg/mL concentrations. Triton X-100 detergent (10 mg/mL) is used in toxicity assays as a reference compound to cause cell death ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
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CUSTOMER VALIDATION

- Mil Med Res. 2022 Jul 6;9(1):37.

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- Nat Metab. 2022 Sep;4(9):1166-1184.
 - Autophagy. 2021 Dec 10;1-19.
 - iScience. 21 September 2021.
 - J Taiwan Inst Chem Eng. 2023 Feb.

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REFERENCES

[1]. Kiss L, et al. Kinetic analysis of the toxicity of pharmaceutical excipients Cremophor EL and RH40 on endothelial and epithelial cells. J Pharm Sci. 2013 Apr;102(4):1173-81.

Caution: Product has not been fully validated for medical applications. For research use only.

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