Gelucire 44/14

Cat. No.:	HY-Y1892
CAS No.:	121548-04-7
Target:	Biochemical Assay Reagents
Pathway:	Others
Storage:	Pure form -20°C 3 years 4°C 2 years

Gelucire 44/14

SOLVENT & SOLUBILITY

In Vitro	Ethanol : 100 mg/mL (Need ultrasonic)

BIOLOGICAL ACTIVITY

Description	Gelucire 44/14 is a potential and safe absorption enhancer for improving the absorption of poorly absorbable agents including insulin and calcitonin by pulmonary delivery.
In Vivo	Gelucire 44/14 is a potential and safe absorption enhancer for improving the absorption of poorly absorbable drugs including insulin and calcitonin by pulmonary delivery. It is found that pulmonary absorptions of FD4, FD10 and FD70 are enhanced in different degree by Gelucire 44/14 in a concentration-dependent manner, and the maximal absorption-enhancing effect is obtained when the concentration of Gelucire 44/14 reaches to 2.0% (w/v). It is also found that the absorption enhancing ability of Gelucire Gelucire 44/14 is correlated with the molecular weight of model drugs, and the highest absorption enhancement ratio of Gelucire Gelucire 14/44 is observed when the molecular weight of model drugs reaches to nearly 10000 Da[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration [1]	Male Sprague Dawley rats are used to evaluate the pulmonary membrane toxicity of Gelucire 44/14. PBS (pH 7.4) with or without Gelucire 44/14 are directly administered to the tracheae of the rats according to the in-situ pulmonary absorption experiments. Four hours later, the rats are bled from the abdominal aorta, and then PBS (pH7.4) is perfused into the rat lung along the trachea. Afterwards, bronchoalveolar lavage fluid (BALF) of rat in each group is collected and kept in ice immediately until determination[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Zhang H, et al. Improvement of pulmonary absorptions of poorly absorbable drugs using Gelucire 44/14 as an absorption enhancer. J Pharm Pharmacol. 2014 Oct;66(10):1410-20.

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