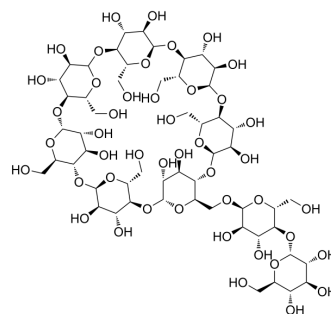


## Mal- $\beta$ -CD

<b>Cat. No.:</b>	HY-18593		
<b>CAS No.:</b>	104723-60-6		
<b>Molecular Formula:</b>	C <sub>54</sub> H <sub>90</sub> O <sub>45</sub>		
<b>Molecular Weight:</b>	1459.27		
<b>Target:</b>	Biochemical Assay Reagents		
<b>Pathway:</b>	Others		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO :  $\geq$  100 mg/mL (68.53 mM)  
 H<sub>2</sub>O :  $\geq$  60.5 mg/mL (41.46 mM)  
 \* " $\geq$ " means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent		1 mg	5 mg	10 mg
	Concentration	Mass			
	1 mM		0.6853 mL	3.4264 mL	6.8527 mL
	5 mM		0.1371 mL	0.6853 mL	1.3705 mL
	10 mM		0.0685 mL	0.3426 mL	0.6853 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: PBS  
Solubility: 100 mg/mL (68.53 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility:  $\geq$  2.5 mg/mL (1.71 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE- $\beta$ -CD in saline)  
Solubility:  $\geq$  2.5 mg/mL (1.71 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility:  $\geq$  2.5 mg/mL (1.71 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Mal- $\beta$ -CD is a cellular cholesterol modifier which can form soluble inclusion complex with cholesterol.

#### In Vitro

Mal- $\beta$ -CD removes cellular cholesterol forming inclusion complexes, while Mal- $\beta$ -CD-induced lack of cellular cholesterol is

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replenished by the addition of cholesterol/Mal- $\beta$ -CD inclusion complex (CLM) without cytotoxicity<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

[1]. Okada Y, et al. Effect of 6-O- $\alpha$ -maltosyl- $\beta$  cyclodextrin and its cholesterol inclusion complex on cellular cholesterol levels and ABCA1 and ABCG1 expression in mouse mastocytoma P-815 cells. Carbohydr Res. 2012 Aug 1;357:68-74.

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

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