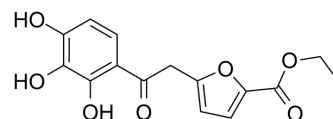


MMG-11 quarterhydrate

Cat. No.:	HY-112146A		
Molecular Formula:	C ₁₅ H ₁₄ O _{7.1/4} H ₂ O		
Molecular Weight:	310.78		
Target:	Toll-like Receptor (TLR)		
Pathway:	Immunology/Inflammation		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



1/4 H₂O

SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (321.77 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		3.2177 mL	16.0886 mL	32.1771 mL
		5 mM		0.6435 mL	3.2177 mL	6.4354 mL
10 mM		0.3218 mL	1.6089 mL	3.2177 mL		
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (8.04 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (8.04 mM); Clear solution Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (6.69 mM); Clear solution 					

BIOLOGICAL ACTIVITY

Description	MMG-11 quarterhydrate is a potent and selective human TLR2 antagonist with low cytotoxicity. MMG-11 quarterhydrate inhibits both TLR2/1 and TLR2/6 signaling with IC ₅₀ s of 1.7 μM for Pam ₃ CSK ₄ -induced hTLR2/1 and 5.7 μM for Pam ₂ CSK ₄ -induced hTLR2/6 responses ^[1] .
IC₅₀ & Target	TLR2
In Vitro	MMG-11 neither shows cellular toxicity nor interference with signaling induced by other TLR agonists, IL-1β or TNF. MMG-11 (0.01-100 μM) shows no cytotoxic effects up to 100 μM in peripheral blood mononuclear cells (PBMCs) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cytotoxicity Assay^[1]

Cell Line:	PBMCs
Concentration:	0.01, 1, 10, 100 μ M
Incubation Time:	
Result:	Showed no cytotoxic effects up to 100 μ M.

CUSTOMER VALIDATION

- Cell Commun Signal. 2023 May 1;21(1):86.
- Mol Immunol. 2021 Feb;130:85-95.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Grabowski M, et al. Identification of a pyrogallol derivative as a potent and selective human TLR2 antagonist by structure-based virtual screening. Biochem Pharmacol. 2018 Aug;154:148-160.

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

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