

**Product Name:** MMG 11

**Catalog No.:** 6858

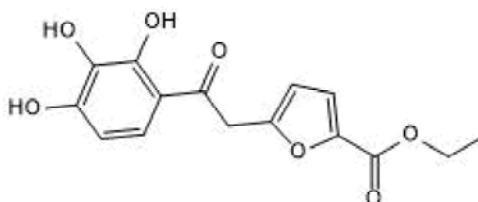
**Batch No.:** 1

CAS Number: 313254-94-3

IUPAC Name: Ethyl 5-(2-oxo-2-(2,3,4-trihydroxyphenyl)ethyl)furan-2-carboxylate

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>15</sub>H<sub>14</sub>O<sub>7</sub>·¼H<sub>2</sub>O  
**Batch Molecular Weight:** 310.77  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 50 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 97.4% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	57.97	4.7	
Found	58.13	4.5	

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**1**

CAS Number: 313254-94-3

IUPAC Name: Ethyl 5-(2-oxo-2-(2,3,4-trihydroxyphenyl)ethyl)furan-2-carboxylate

**Description:**

MMG 11 is a TLR2 antagonist (IC<sub>50</sub> values are in the range 1.7 - 5.7 μM). Exhibits selectivity for TLR2 over TLR4, TLR5, TLR7/8 and TLR9. Reduces TLR2-mediated cytokine secretion from PBMCs. MMG 11 preferentially inhibits TLR2/1- over TLR2/6-mediated NK-kB activation (IC<sub>50</sub> values are 0.87 and 7.4 μM, respectively).

**Physical and Chemical Properties:**

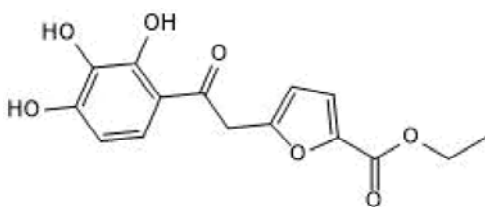
Batch Molecular Formula: C<sub>15</sub>H<sub>14</sub>O<sub>7</sub>·¼H<sub>2</sub>O

Batch Molecular Weight: 310.77

Physical Appearance: White solid

**Minimum Purity:** ≥97%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**CAUTION** - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 50 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Grabowski *et al*** (2020) The novel small-molecule antagonist MMG-11 preferentially inhibits TLR2/1 signaling. *Biochem.Pharmacol.* **171** 113687. PMID: 31678495.

**Grabowski *et al*** (2019) Identification of a pyrogallol derivative as a potent and selective human TLR2 antagonist by structure-based virtual screening. *Biochem.Pharmacol.* **154** 148. PMID: 29684378.

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