

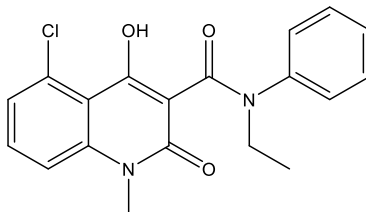
**Catalog # 10-4971**

**Laquinimod**

CAS# 248281-84-7

5-Chloro-N-ethyl-4-hydroxy-1-methyl-2-oxo-N-phenylquinoline-3-carboxamide; ABR-215062

Lot # FBS2181



Laquinimod is an immunomodulator<sup>1</sup> that inhibits inflammation<sup>2</sup> and autoimmunity<sup>3,4</sup> via activation of the aryl hydrocarbon receptor (AhR)<sup>5</sup>. It has been investigated as a treatment for multiple sclerosis<sup>6</sup> and has shown efficacy in Huntington's disease models<sup>7,8</sup>.

- 1) Jönsson *et al.* (2004), *Synthesis and Biological Evaluation of New 1,2-Dihydro-4-hydroxy-2-oxo-3-quinolinecarboxamides for Treatment of Autoimmune Disorders: Structure-Activity Relationship*; J. Med. Chem. **47** 2075
- 2) Rothhammer *et al.* (2021); *Aryl Hydrocarbon Receptor Activation in Astrocytes by Laquinimod Ameliorates Autoimmune Inflammation in the CNS*, Neurol. Neuroimmunol. Neuroinflamm., **8** e946
- 3) Pitarokoili *et al.* (2014), *Laquinimod exerts strong clinical and immunomodulatory effects in Lewis rat experimental autoimmune neuritis*; J. Neuroimmunol., **274** 38
- 4) Ott *et al.* (2019), *Laquinimod, a prototypic quinoline-3-carboxamide and aryl hydrocarbon receptor agonist, utilizes CD155-mediated natural killer/dendritic cell interaction to suppress CNS autoimmunity*; J. Neuroinflammation, **16** 49
- 5) Kaye *et al.* (2016), *Laquinimod arrests experimental autoimmune encephalitis by activating the aryl hydrocarbon receptor*; Proc. Natl. Acad. Sci. USA., **113** E6145
- 6) Thöne and Linker (2016), *Laquinimod in the treatment of multiple sclerosis: a review of the data so far*, Drug Des. Devel. Ther., **10** 1111
- 7) Dobson *et al.* (2016), *Laquinimod dampens hyperactive cytokine production in Huntington's disease patient myeloid cells*; J. Neurochem., **137** 782
- 8) Garcia-Miralles *et al.* (2016), *Laquinimod rescues striatal, cortical and white matter pathology and results in modest behavioural improvements in the YAC128 model of Huntington disease*; Sci. Rep., **6** 31652

**PHYSICAL DATA**

Molecular Weight:	356.81
Molecular Formula:	C <sub>19</sub> H <sub>17</sub> ClN <sub>2</sub> O <sub>3</sub>
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (>25 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

**Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.**