

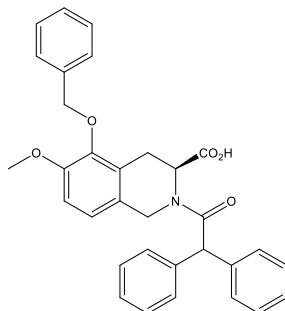
Catalog # 10-4957

Olodanrigan

CAS# 1316755-16-4

(3S)-2-(2,2-Diphenylacetyl)-6-methoxy-5-phenylmethoxy-3,4-dihydro-1H-isoquinoline-3-carboxylic acid; (S)-Benzyloxy-2-diphenylacetyl-6-methoxy-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid; EMA401

Lot # FBS3056



Olodanrigan (EMA401) is a potent ($IC_{50} = 39.5$ nM) and selective ($>10,000$ -fold selectivity AT_2R/AT_1R) antagonist of the angiotensin II type 2 receptor.¹ It produced dose-dependent relief of hindpaw sensitivity in a rat model of neuropathic pain¹ and showed efficacy in a human trial against postherpetic neuralgia². Olodanrigan prevented paclitaxel-associated acute pain syndrome in mice.³ It blocked visceral hypersensitivity and colonic hyperpermeability in a rat model of irritable bowel syndrome.⁴ It was also able to inhibit proliferation of AT_2R -expressing glioblastoma spheroids and blocked their invasiveness and angiogenic capability.⁵

- 1) Smith *et al.* (2013), *Small Molecule Angiotensin II Type 2 Receptor (AT_2R) Antagonists as Novel Analgesics for Neuropathic Pain: Comparative Pharmacokinetics, Radioligand Binding, and Efficacy in Rats*; *Pain Med.*, **14** 692
- 2) Rice *et al.* (2014), *EMA401, an orally administered highly selective angiotensin II type 2 receptor antagonist, as a novel treatment for postherpetic neuralgia: a randomized, double-blind, placebo-controlled phase 2 clinical trial*; *Lancet*, **383** 1637
- 3) Zanata *et al.* (2021), *Blockade of bradykinin receptors or angiotensin II type 2 receptor prevents paclitaxel-associated acute pain syndrome in mice*; *Eur. J. Pain.*, **25** 189
- 4) Nozu *et al.* (2021), *EMA401, an angiotensin II type 2 receptor antagonist blocks visceral hypersensitivity and colonic hyperpermeability in rat model of irritable bowel syndrome*; *J. Pharmacol. Sci.*, **146** 121
- 5) Perryman *et al.* (2022), *Inhibition of the angiotensin II type 2 receptor AT_2R is a novel therapeutic strategy for glioblastoma*; *Proc. Natl. Acad. Sci. USA*, **119** e2116289119

PHYSICAL DATA

| | |
|------------------------|--|
| Molecular Weight: | 507.59 |
| Molecular Formula: | $C_{32}H_{29}NO_5$ |
| Purity: | $>98\%$ by HPLC |
| | NMR: (Conforms) |
| Solubility: | DMSO (at least 35 mg/ml) |
| Physical Description: | Off-white solid |
| Storage and Stability: | Store as supplied at room temperature for up to 2 years from the date of purchase. Solutions in DMSO may be stored at $-20^{\circ}C$ for up to 3 months. |

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