

# Alvimopan (monohydrate)

Catalog No: tcsc1539



## Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 50mg



## Specifications

**CAS No:**

1383577-62-5

**Formula:**

$C_{25}H_{34}N_2O_5$

**Pathway:**

GPCR/G Protein;Neuronal Signaling

**Target:**

Opioid Receptor;Opioid Receptor

**Purity / Grade:**

>98%

**Solubility:**

10 mM in DMSO

**Alternative Names:**

LY 246736 monohydrate;ADL 8-2698 monohydrate

**Observed Molecular Weight:**

442.55

## Product Description

Alvimopan monohydrate is a peripherally acting mu-opioid receptor (PAM-OR, IC50= 1.7 nM) antagonist for accelerating gastrointestinal recovery after surgery.

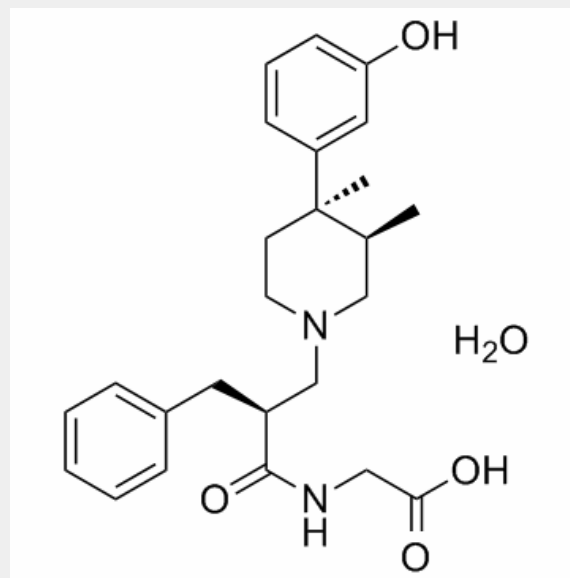
IC50 Value: 1.7 nM (Mu-type opioid receptor) [1]

in vitro: The dissociation rate of alvimopan from the micro opioid receptor ( $t(1/2)=30\text{--}44$  min) was comparable to that of the long acting partial agonist buprenorphine ( $t(1/2)=44$  min), but was slower than those of the antagonists naloxone ( $t(1/2)=0.82$  min) and N-methylnaltrexone ( $t(1/2)=0.46$  min) [2].

in vivo: Alvimopan did not significantly accelerate GI-3 compared with placebo [6 mg: hazard ratio (HR) = 1.20,  $p = 0.080$ ; 12 mg: HR = 1.24,  $p = 0.038$ ). However, after adjustment for significant covariates (sex/surgical duration), benefits were significant for both doses (6 mg: HR = 1.24,  $p = 0.037$ ; 12 mg: HR = 1.26,  $p = 0.028$ ). Alvimopan also significantly accelerated time to GI-2 (6 mg: HR = 1.37,  $p = 0.008$ ; 12 mg: HR = 1.33,  $p = 0.018$ ) and DCO (6 mg: HR = 1.31,  $p = 0.008$ ; 12 mg: HR = 1.28,  $p = 0.015$ ) [3]. Alvimopan (1 and 3 mg/kg) significantly reversed this delayed GI transit when administered 45 min prior to surgery. However, the effects of alvimopan were less pronounced when administered following surgery [4].

Toxicity: The most common treatment-emergent adverse events across all treatment groups were nausea, vomiting, and hypotension; the incidence of nausea and vomiting was reduced by 53 percent in the alvimopan 12-mg group [5].

Clinical trial: Intercostal Nerve Block With Liposome Bupivacaine in Subjects Undergoing Posterolateral Thoracotomy. Phase 3



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!