

# Naltrexone (Hydrochloride)

Catalog No: tcsc0763



## Available Sizes

**Size:** 100mg

**Size:** 250mg



## Specifications

**CAS No:**

16676-29-2

**Formula:**

$C_{20}H_{24}ClNO_4$

**Pathway:**

GPCR/G Protein; Neuronal Signaling

**Target:**

Opioid Receptor; Opioid Receptor

**Purity / Grade:**

>98%

**Solubility:**

DMSO:  $\geq 33$  mg/mL

**Observed Molecular Weight:**

377.86

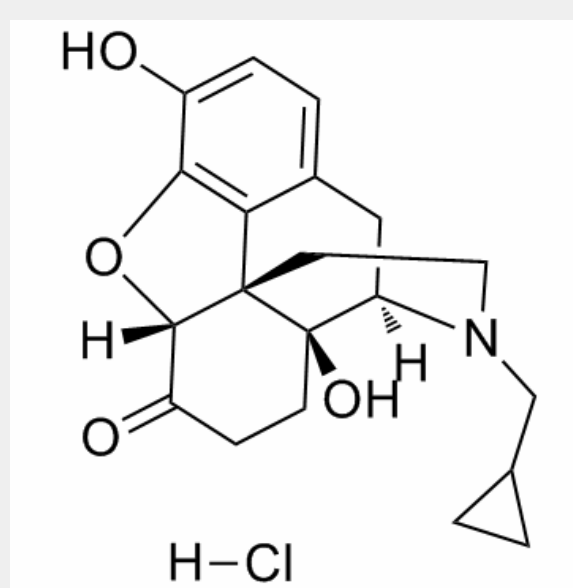
## Product Description

Naltrexone hydrochloride is an opioid receptor antagonist used primarily in the management of alcohol dependence and opioid dependence.

IC50 Value:

Target: Opioid Receptor

Naltrexone is competitive antagonist for  $\mu$ ,  $\kappa$ ,  $\delta$ , and  $\sigma$ -opioid receptors, Naltrexone has greater oral efficacy and longer duration of action than naloxone. Naltrexone treatment caused a doubling in the density of [3H]DAMGO binding sites in both whole brain membranes and the 7315c cell membranes. Naltrexone treatment may have slightly diminished the affinity of mu opioid receptors for [3H]DAMGO (by 1.5- to 2-fold), but the precision of the assay was inadequate to determine whether this difference was significant. Naltrexone treatment also had no effect on the potency or efficacy of guanosine 5'-O-(3-thiotriphosphate) in diminishing [3H]DAMGO binding to either whole brain or 7315c cell membranes. Naltrexone which has no SP receptor antagonistic action, not only indirectly acts on SP-ergic neurons but also causes a change in the apparent affinity of NK-1 receptor (as reflected by changes in IC50 values) in the striatum. Cellular inositol-1,4,5-trisphosphate [Ins(1,4,5)P3], quantified by a highly sensitive and selective radioreceptor mass assay, was increased in the striatum by 28% relative to control levels.



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