**Product Data Sheet**

**Product Name:** JTC-801  
**CAS No.:** 244218-51-7  
**Cat. No.:** HY-13274  
**M.Wt.:** 447.96  
**Formula:** C26H26ClN3O2  
**Purity:** >98%  

**Solubility:**  
- DMSO ≥86mg/mL  
- Water <1.2mg/mL  
- Ethanol ≥36mg/mL

**Mechanisms:**  
Pathways: GPCR/G protein; Target: Opioid Receptor  
Pathways: Neuronal Signaling; Target: Opioid Receptor

**Biological Activity:**

JTC-801 is a selective opioid receptor-like1 (ORL1) receptor antagonist with IC50 of 94 nM, weakly inhibits receptors δ, κ, and μ.  

IC50 value: 94 nM [1]  
Target: ORL1  
in vitro: In rat cerebrocortical membrane, JTC-801 inhibits ORL1 receptor with IC50 of 472 nM and μ-receptor with IC50 of 1831 nM. JTC-801 completely antagonizes the suppression of nociceptin on forskolin-induced accumulation of cyclic AMP with IC50 of 2.58 μM in HeLa cells expressing ORL1 receptor [1]. JTC-801 displays about 12.5-, 129-, and 1055-fold selectivity for ORL1 receptor (Ki = 8.2 nM) over μ-, κ-, and δ-opioid receptors, respectively. JTC-801 does not inhibit forskolin-stimulated cyclic AMP accumulation in human ORL1 receptor-expressing HeLa cells, but it prevents nociceptin-induced inhibition of cyclic AMP accumulation, indicating that JTC-801 possesses full antagonistic activity [2].

in vivo...

**References:**


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**Caution:** Not fully tested. For research purposes only

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