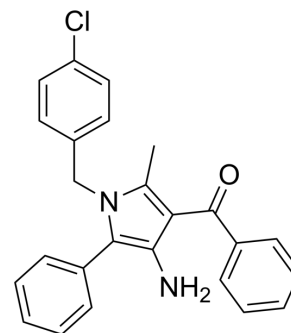


URB447

Cat. No.:	HY-122964
CAS No.:	1132922-57-6
Molecular Formula:	C ₂₅ H ₂₁ ClN ₂ O
Molecular Weight:	400.9
Target:	Cannabinoid Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	URB447 is a peripherally restricted CB ₁ cannabinoid antagonist (IC ₅₀ : 313 nM and 41 nM for rat CB ₁ and human CB ₂ receptor respectively). URB447 lowers food intake and body-weight gain in mice without entering the brain or antagonizing central CB ₁ -dependent responses. URB447 can be used for research of obesity ^[1] .
IC₅₀ & Target	CB ₁ 313 nM (IC ₅₀)
In Vitro	URB447 (100 nM-30 μM) inhibits GTPγS binding induced by the CB agonist WIN55,212-2 (1 μM), with an EC ₅₀ of 4.9 μM in rat cerebellar membrane preparations ^[1] . URB447 (1 μM) inhibits β-adrenergic agonist Isoproterenol (10 μM) induced cAMP accumulation in Hek-293 cells stably expressing mouse CB ₂ receptors ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	URB447 (20 mg/kg, i.p.) reduces total food consumption in Swiss mice, and shows a C _{max} of 596 nM ^[1] . URB447 (20 mg/kg, i.p.) blocks the analgesic effects of Methanandamide in Swiss mice, indicating URB447 inhibits peripheral CB ₁ -mediated analgesia ^[1] . URB447 (20 mg/kg, i.p., once daily for 2 weeks) reduces food consumption and body-weight gain in obese ob/ob mice ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. LoVerme J, et al. Synthesis and characterization of a peripherally restricted CB₁ cannabinoid antagonist, URB447, that reduces feeding and body-weight gain in mice. *Bioorg Med Chem Lett*. 2009 Feb 1;19(3):639-43.

Caution: Product has not been fully validated for medical applications. For research use only.

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