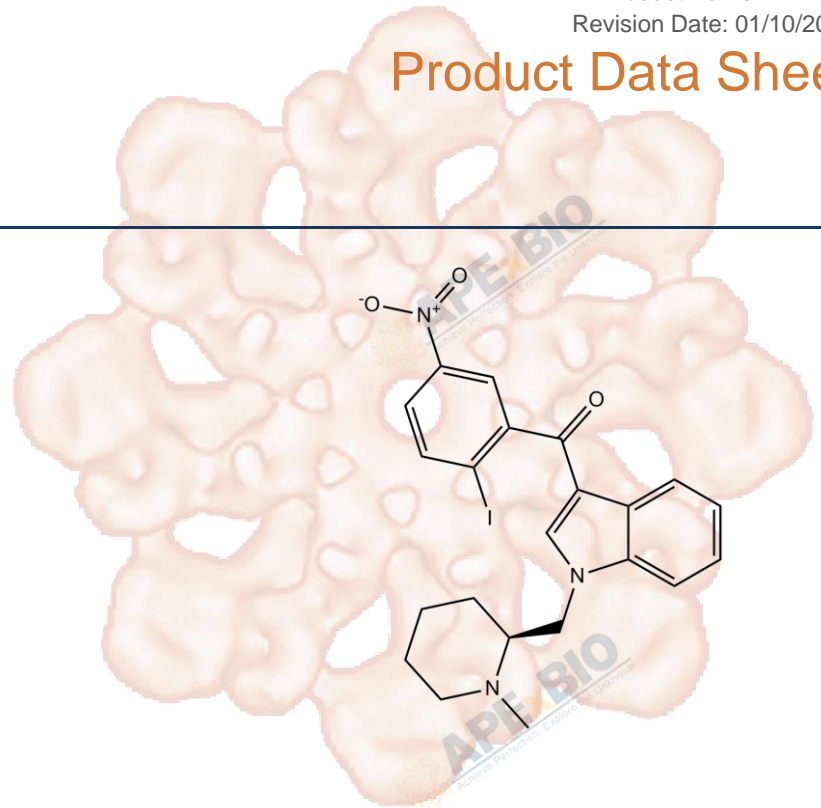


# Product Data Sheet

## AM1241

<b>Cat. No.:</b>	A5827
<b>CAS No.:</b>	444912-48-5
<b>Formula:</b>	C <sub>22</sub> H <sub>22</sub> IN <sub>3</sub> O <sub>3</sub>
<b>M.Wt:</b>	503.33
<b>Synonyms:</b>	
<b>Target:</b>	GPCR/G protein
<b>Pathway:</b>	Cannabinoid Receptor
<b>Storage:</b>	Store at -20°C



## Solvent & Solubility

≥50.3 mg/mL in DMSO with gentle warming; insoluble in H<sub>2</sub>O; ≥3.87 mg/mL in EtOH with ultrasonic

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	<b>Concentration</b>			
	<b>1 mM</b>	1.9868 mL	9.9338 mL	19.8677 mL
	<b>5 mM</b>	0.3974 mL	1.9868 mL	3.9735 mL
	<b>10 mM</b>	0.1987 mL	0.9934 mL	1.9868 mL

Please refer to the solubility information to select the appropriate solvent.

## Biological Activity

Shortsummary

Cannabinoid CB2 receptor agonist, potent and selective

IC<sub>50</sub> & Target

3.4 nM(Ki) (CB2), 280 nM(Ki) (CB1)

In Vitro

### Cell Viability Assay

Cell Line: Human embryonic kidney (HEK) cells stably expressing the human CB2 receptor, Chinese hamster ovary (CHO) cell line stably expressing the human CB1 receptor

Preparation method: The solubility of this compound in DMSO is > 25.2 mg/mL. General tips for

		obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
	Reacting conditions:	Ki: ~7 nM (human CB2 receptor)
	Applications:	In HEK cells stably expressing the human CB2 receptor, AM1241 exhibited antagonist activity, blocking the agonist CP 55,940-evoked Ca <sup>2+</sup> response in a concentration dependent manner with a Kb value of 63nM. In [3H]CP 55,940 competition binding assays, AM-1241 displayed high affinity at the human CB2 receptor with a Ki value of ~7 nM, whereas its affinity at the human CB1 receptor was more than 80-fold weaker, using membrane preparations from stable HEK and CHO cell lines expressing the recombinant human CB2 and CB1 receptors, respectively.
In Vivo	<b>Animal experiment</b>	
	Animal models:	Adult male Sprague–Dawley rats
	Dosage form:	Intraperitoneal injection, 100, 330 µg/kg
	Applications:	AM1241 (100, 330 µg/kg i.p.) suppressed the development of carrageenan-evoked thermal and mechanical hyperalgesia and allodynia. Intraplantar (ipl) administration of AM1241 (33 µg/kg ipl) suppressed hyperalgesia and allodynia following administration to the carrageenan-injected paw but was inactive following administration in the contralateral (noninflamed) paw.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

## Product Citations

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

- [1]. Yao B B, Mukherjee S, Fan Y, et al. In vitro pharmacological characterization of AM1241: a protean agonist at the cannabinoid CB2 receptor[J]. British journal of pharmacology, 2006, 149(2): 145-154.
- [2]. Nackley A G, Makriyannis A, Hohmann A G. Selective activation of cannabinoid CB 2 receptors suppresses spinal fos protein expression and pain behavior in a rat model of inflammation[J]. Neuroscience, 2003, 119(3): 747-757.

## Caution

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**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

**APExBIO Technology**

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