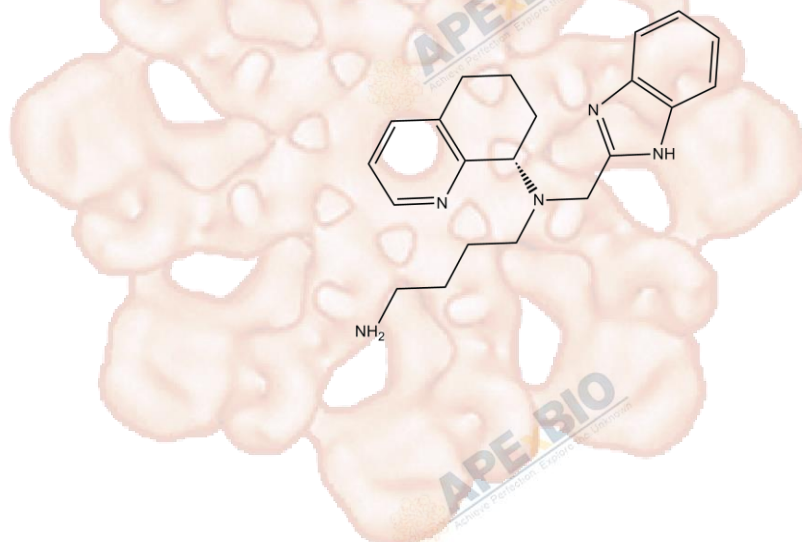


# Product Data Sheet

## AMD-070

<b>Cat. No.:</b>	A3173
<b>CAS No.:</b>	558447-26-0
<b>Formula:</b>	C <sub>21</sub> H <sub>27</sub> N <sub>5</sub>
<b>M.Wt:</b>	349.48
<b>Synonyms:</b>	AMD 070; AMD070
<b>Target:</b>	GPCR/G protein
<b>Pathway:</b>	CXCR
<b>Storage:</b>	Store at -20°C



## Solvent & Solubility

≥17.45 mg/mL in DMSO; ≥44.5 mg/mL in EtOH; ≥7.47 mg/mL in H<sub>2</sub>O with gentle warming

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	<b>Concentration</b>			
	<b>1 mM</b>	2.8614 mL	14.3070 mL	28.6139 mL
	<b>5 mM</b>	0.5723 mL	2.8614 mL	5.7228 mL
	<b>10 mM</b>	0.2861 mL	1.4307 mL	2.8614 mL

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

## Biological Activity

Shortsummary

CXCR4 antagonist, potent and selective

IC<sub>50</sub> & Target

In Vitro

### Cell Viability Assay

Cell Line:	Melanoma cells CHL-1 and A375, HOS cells
Preparation method:	The solubility of this compound in DMSO is >17.5mg/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:	6.6 μM, 24h

	Applications:	In melanoma cells CHL-1 and A375, treatment of AMD-070 significantly inhibited the migration of cells. Besides that, the void sizes of cells were also increased by the inhibitor treatment. In HOS cells expressing human CXCR4, AMD-070 inhibited HIV-1 infection with IC50 value of 10 nM.
In Vivo	<b>Animal experiment</b>	
	Applications:	
	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] O'boyle G, Swidenbank I, Marshall H, et al. Inhibition of CXCR4–CXCL12 chemotaxis in melanoma by AMD11070[J]. British journal of cancer, 2013, 108(8): 1634.
- [2] Gudmundsson K S, Sebahar P R, Richardson L D A, et al. Amine substituted N-(1H-benzimidazol-2ylmethyl)-5, 6, 7, 8-tetrahydro-8-quinolinamines as CXCR4 antagonists with potent activity against HIV-1[J]. Bioorganic & medicinal chemistry letters, 2009, 19(17): 5048-5052.

## Caution

**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.



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