Oxazolone

Cat. No.: HY-126360

CAS No.: 15646-46-5

Molecular Formula: $C_{12}H_{11}NO_3$

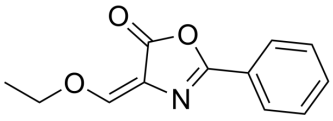
Molecular Weight: 217.22

Target: TNF Receptor; Interleukin Related

Pathway: Apoptosis; Immunology/Inflammation

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (460.36 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.6036 mL	23.0181 mL	46.0363 mL
	5 mM	0.9207 mL	4.6036 mL	9.2073 mL
	10 mM	0.4604 mL	2.3018 mL	4.6036 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (11.51 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Oxazolone is a haptenizing agent that induces acute or chronic inflammation of the large intestine and is used to construct models of colitis. Oxazolone can cause Th1/Th2-dependent colitis with weight loss and diarrhea. Oxazolone-induced inflammation can be mitigated by neutralizing anti-IL-4 or anti-TNF-α antibodies or decoy IL-13R2-α-FC proteins[1].

IC_{50} & Target			
	IL-4	IL-13	TNFR1

In Vivo

Colitis induction[1]

1.Prepare procedure

Preparation of sensitization solution (I):

Mix acetone and olive oil in a 4:1 v/v ratio by vortexing. Dissolve a 60 mg oxazolone in 2 mL of this solution to obtain a 3 % (w/v) oxazolone sensitization solution. Mix the solution by carefully vortexing.

Preparation of challenge solution (II):

Dissolve 20 mg Oxazolone in 2 mL of 50 % ethanol to obtain a 1 % (w/v) solution. Mix the solution by careful vortexing. The oxazolone powder should be completely dissolved before use.

2. Experimental procedure
Sensitization pretreatment:
The electric scissors scraped an area of about 2 cmx2 cm on the skin of the mice's backs. Be careful to avoid open wounds. Apply 150 µL of sensitizing solution (working solution 1) to the exposed skin of mice. Be careful to use an Oxazolone-free sensitizer as a control.Induction treatment:
Anesthetized mice: intraperitoneally injected ketamine/thiazide solution (80 µL/10 g), or inhaled with isoflurane anesthesia system.
The catheter was inserted into the colon of the mice (about 3-4 cm deep at the proximal end of the anus). The other end of the catheter is connected to a 1 mL syringe.
About 100 µL of oxazolone stimulation solution is injected into the colonic cavity through a catheter for 10 to 30 seconds.After dosing, hold the mouse in a vertical position (head down) for 60 seconds.
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Weigmann B, et al. Oxazolone-Induced Colitis as a Model of Th2 Immune Responses in the Intestinal Mucosa. Methods Mol Biol. 2016;1422:253-61.

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