

---

**Product Data Sheet**

---

Product Name: YM-264  
Cat. No.: GC32036

**Chemical Properties**

Cas. No. 131888-54-5

SMILES O=C(N1CCN(CCC(C2=CC=CC=C2)(C)C)CC1)C3NC(C4=CC=CN=C4)SC3.O=C(O)/C=C/C(O)=O

Formula  $C_{28}H_{36}N_4O_5S$  M.Wt 540.67

Solubility Soluble in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

**Protocol**

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

---

## Product Data Sheet

---

### Animal experiment:

Guinea Pigs[2] Male Hartley guinea pigs weighing approximately 300 g are sensitized. The animals are fixed in position with the nose and mouth directed toward the center of the cylinder. Ovalbumin (10 mg/mL) is administered daily for 10 min. On the ninth or tenth day, all of the animals exhibit asthmatic symptoms. Two booster inhalations of AO (10 mg/mL) are subsequently given to the guinea pigs for 5 min at weekly intervals. Forty-five animals are randomized into three experimental groups by the order of their capture from shipping crate. Each group is further divided into three subgroups for control, YM-264 (1 mg/kg) and YM-264 (3 mg/kg). One week after the second booster inhalation, 16 animals for AH experiment are randomly divided into three subgroups for control and YM-264 treatment (1 and 3 mg/kg), and they are exposed to aerosolized OA (10 mg/mL) for 5 min. A dose of 1 or 3 mg/kg of YM264 is administered orally 30 min before and again, 3 h after the exposure to OA. The control group receives 0.5% methylcellulose in the same volume as YM-264[2].

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

---

## Product Data Sheet

---

### References:

- [1]. Yamada T, et al.  
Pharmacological  
properties of YM264,  
a potent and orally  
active antagonist of  
platelet-activating  
factor. Arch Int  
Pharmacodyn Ther.  
1990 Nov-  
Dec;308:123-36.
- [2]. Arima M, et al.  
Effect of YM264 on  
the airway  
hyperresponsiveness  
and the late  
asthmatic response  
in a guinea pig  
model of asthma.  
Chest. 1995  
Aug;108(2):529-34.

### Background

YM-264 is a selective, potent and orally active platelet-activating factor (PAF) antagonist with a pKi value of 8.85 for rabbit platelet membranes.

The anti-platelet-activating factor effect of YM-264 is examined in vitro. YM-264 inhibits [3H] platelet-activating factor binding to rabbit platelet membranes with a pK<sub>i</sub> value of 8.85. YM-264 inhibits the platelet-activating factor-induced human, rabbit and guinea-pig platelet aggregation with pA<sub>2</sub> values of 8.68, 8.33 and 8.14, respectively[1].

There are no significant differences in baseline airway responsiveness between control and YM-264 treated groups. Airway hyperresponsiveness induced by antigen exposure is

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

---

## Product Data Sheet

---

significantly inhibited by the administration of YM-264. The baseline Rrs is 0.40 (0.02) cm H<sub>2</sub>O/mL/s in the control group (n=6). In the YM-264 treated groups, the baseline Rrs is 0.39 (0.01) and 0.36 (0.01) cm H<sub>2</sub>O/mL/s at a doses of 1 mg/kg (n=5) and 3 mg/kg (n=6), respectively. The Rrs during the IAR significantly increase from baseline to 0.92 (0.10) cm H<sub>2</sub>O/mL/s in control (p=0.0002), 0.81 (0.12) in YM-264 1 mg/kg (p=0.01), and 1.06 (0.29) in YM-264 3 mg/kg (p=0.048). Reevaluation of Rrs in the late phase is observed in the control group after antigen challenge. At this phase, Rrs significantly increase to 0.72 (0.10) cm H<sub>2</sub>O/mL/s (p=0.0101) from the baseline (0.40) at 6 h after the exposure of antigen. In contrast, YM-264 at the doses of 1 and 3 mg/kg show significant inhibition of reevaluation of Rrs as compared with control. YM-264 inhibit the eosinophil infiltration dose dependently[2].

[1]. Yamada T, et al. Pharmacological properties of YM264, a potent and orally active antagonist of platelet-activating factor. Arch Int Pharmacodyn Ther. 1990 Nov-Dec;308:123-36. [2]. Arima M, et al. Effect of YM264 on the airway hyperresponsiveness and the late asthmatic response in a guinea pig model of asthma. Chest. 1995 Aug;108(2):529-34.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA