## **Product** Data Sheet

## Repirinast

Cat. No.: HY-109544

CAS No.: 73080-51-0

Molecular Formula:  $C_{20}H_{21}NO_{5}$ Molecular Weight: 355.38

Target: Histamine Receptor

Pathway: GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

## **BIOLOGICAL ACTIVITY**

| Description |                                                                                                                                                                                                                                                                                                                                     | Repirinast (MY-5116) is an orally active anti-allergic agent. Repirinast inhibits histamine release. Repirinast can be used in the research of bronchial asthma $^{[1][2][3]}$ .                                                    |  |  |  |  |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| In Vitro    | ·                                                                                                                                                                                                                                                                                                                                   | Repirinast inhibits histamine release from rat peritoneal mast cells induced by antigen (IC $_{50}$ : 0.3 $\mu$ M) <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only. |  |  |  |  |
| In Vivo     | Repirinast (30 mg/kg, i.p.) inhibits antigen-induced early and late pulmonary responses in guinea pigs <sup>[1]</sup> . Repirinast (30 mg/kg, p.o.) inhibits antigen-induced immediate bronchoconstriction in rats <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only. |                                                                                                                                                                                                                                     |  |  |  |  |
|             | Animal Model:                                                                                                                                                                                                                                                                                                                       | Guinea $pigs^{[1]}$                                                                                                                                                                                                                 |  |  |  |  |
|             | Dosage:                                                                                                                                                                                                                                                                                                                             | 30 mg/kg                                                                                                                                                                                                                            |  |  |  |  |
|             | Administration:                                                                                                                                                                                                                                                                                                                     | Intraperitoneal injection (i.p.)                                                                                                                                                                                                    |  |  |  |  |
|             | Result:                                                                                                                                                                                                                                                                                                                             | Inhibited leukocyte (predominantly eosinophils) infiltration into bronchial tissue. Blocked antigen-induced airway hyperresponsiveness to inhaled Acetylcholine.                                                                    |  |  |  |  |
|             | Animal Model:                                                                                                                                                                                                                                                                                                                       | Rat with asthma (challenged with 10 mg/kg antigen OVA) $^{[1]}$                                                                                                                                                                     |  |  |  |  |
|             | Dosage:                                                                                                                                                                                                                                                                                                                             | 30 mg/kg                                                                                                                                                                                                                            |  |  |  |  |
|             | Administration:                                                                                                                                                                                                                                                                                                                     | Oral administration (p.o.)                                                                                                                                                                                                          |  |  |  |  |
|             | Result:                                                                                                                                                                                                                                                                                                                             | Inhibited the decreases in the number Of breath at 30 sec and 1 min after challenge.                                                                                                                                                |  |  |  |  |

## **REFERENCES**

[1]. N Yamada, et al. Repirinast inhibits antigen-induced early and late pulmonary responses and airway hyperresponsiveness in guinea pigs. Int Arch Allergy Immunol. 1993;100(4):367-72.

| [2] Takahashi K Effects of M                                                                                                                                                                      | IY-5116 on experimental asth                                                                                                            | ma in rats and guinea pigs. Areruջ | zi 1986 Oct: 35(10): 1037-46         |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------|--|--|--|
| [3]. M Takei, et al. Inhibition of histamine release from rat peritoneal mast cells by MY-1250, an active metabolite of Repirinast (MY-5116). Int Arch Allergy Appl Immunol. 1990;93(2-3):237-41. |                                                                                                                                         |                                    |                                      |  |  |  |
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|                                                                                                                                                                                                   |                                                                                                                                         |                                    | nedical applications. For research u |  |  |  |
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