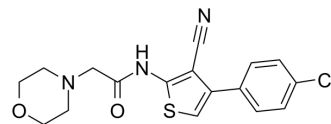


## COX-2/5-LOX-IN-3

|                           |                                                                                           |
|---------------------------|-------------------------------------------------------------------------------------------|
| <b>Cat. No.:</b>          | HY-147951                                                                                 |
| <b>CAS No.:</b>           | 2481484-51-7                                                                              |
| <b>Molecular Formula:</b> | C <sub>17</sub> H <sub>16</sub> ClN <sub>3</sub> O <sub>2</sub> S                         |
| <b>Molecular Weight:</b>  | 361.85                                                                                    |
| <b>Target:</b>            | COX; Lipoxygenase                                                                         |
| <b>Pathway:</b>           | Immunology/Inflammation; Metabolic Enzyme/Protease                                        |
| <b>Storage:</b>           | Please store the product under the recommended conditions in the Certificate of Analysis. |



### BIOLOGICAL ACTIVITY

|                                     |                                                                                                                                                                                                                                                                            |                                                                  |                                       |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------|
| <b>Description</b>                  | COX-2/5-LOX-IN-3 (compound 5b) is a potent and dual COX-2/5-LOX inhibitor with IC <sub>50</sub> values of 45.73, 5.45 and 4.33 μM for COX-1, COX-2, and 5-LOX, respectively. COX-2/5-LOX-IN-3 has the potential for the research of inflammation diseases <sup>[1]</sup> . |                                                                  |                                       |
| <b>IC<sub>50</sub> &amp; Target</b> | 5-LOX<br>4.33 μM (IC <sub>50</sub> )                                                                                                                                                                                                                                       | COX-2<br>5.45 μM (IC <sub>50</sub> )                             | COX-1<br>45.73 μM (IC <sub>50</sub> ) |
| <b>In Vivo</b>                      | COX-2/5-LOX-IN-3 (compound 5b) (p.o.; male Sprague Dawley rats) shows anti-inflammatory activities in vivo <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.                                                |                                                                  |                                       |
|                                     | <b>Animal Model:</b>                                                                                                                                                                                                                                                       | Male Sprague Dawley rats <sup>[1]</sup>                          |                                       |
|                                     | <b>Dosage:</b>                                                                                                                                                                                                                                                             | 2.622 X 10 <sup>-5</sup> mol/kg                                  |                                       |
|                                     | <b>Administration:</b>                                                                                                                                                                                                                                                     | Oral administration                                              |                                       |
|                                     | <b>Result:</b>                                                                                                                                                                                                                                                             | The percentage inhibition of edema (%I) reached 58.77% after 4h. |                                       |

### REFERENCES

[1]. Qandeel NA, et al. Synthesis, in vivo anti-inflammatory, COX-1/COX-2 and 5-LOX inhibitory activities of new 2,3,4-trisubstituted thiophene derivatives. Bioorg Chem. 2020 Sep;102:103890.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA