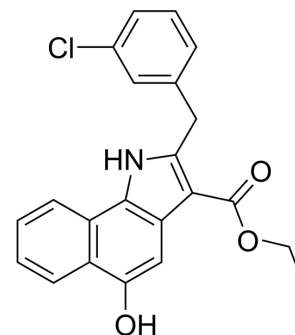


5-LOX-IN-6

| | |
|---------------------------|---|
| Cat. No.: | HY-120502 |
| CAS No.: | 1159576-98-3 |
| Molecular Formula: | C ₂₂ H ₁₈ ClNO ₃ |
| Molecular Weight: | 379.84 |
| Target: | Lipoxygenase; Leukotriene Receptor |
| Pathway: | Metabolic Enzyme/Protease; GPCR/G Protein |
| Storage: | Please store the product under the recommended conditions in the Certificate of Analysis. |



BIOLOGICAL ACTIVITY

| | | |
|-------------------------------------|--|---|
| Description | 5-LOX-IN-6 (compound 11a) is a direct and reversible inhibitor of 5-lipoxygenase (5-LO). 5-LOX-IN-6 inhibits 5-LO activity in human neutrophils and recombinant human 5-LO with IC ₅₀ values of 0.23 and 0.086 μM, respectively. 5-LOX-IN-6 prevents leukotriene biosynthesis. 5-LOX-IN-6 can be used for inflammatory and allergic disorders research ^[1] . | |
| IC₅₀ & Target | 5-LO | LTB ₄ |
| In Vitro | 5-LOX-IN-6 (compound 11a) (0-10 μM) efficiently blocks 5-LO product formation in human whole blood assays (IC ₅₀ =0.83-1.6 μM) ^[1] . 5-LOX-IN-6 (0-10 μM) fails to block A23187 (HY-N6687, 2.5 μM)-induced translocation of 5-LO in neutrophils ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. | |
| In Vivo | 5-LOX-IN-6 (compound 11a) (4 mg/kg, ip) significantly prevents leukotriene B ₄ production in pleural exudates of λ-carrageenan (HY-N9470)-treated rats, associated with reduced severity of pleurisy ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. | |
| | Animal Model: | Male Wistar Han rats (220-230 g, n=10 per group) ^[1] |
| | Dosage: | 4 mg/kg |
| | Administration: | IP, 30 min before λ-carrageenan administration. Rats were anaesthetized and λ-carrageenan (HY-N9470) was injected into the pleural cavity. |
| | Result: | significantly reduced the inflammatory reaction measured as exudate volume (77%), inflammatory cell numbers (40%), and LTB ₄ levels (49%) in the pleural exudates. |

REFERENCES

[1]. Karg EM, et al. Structural optimization and biological evaluation of 2-substituted 5-hydroxyindole-3-carboxylates as potent inhibitors of human 5-lipoxygenase. J Med Chem. 2009 Jun 11;52(11):3474-83.

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

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