Product Datasheet

HRS-9821

Catalog No. **BP-08733** · CAS **2857007-03-3** · Form **free base** · Physical state **solid** · Color **White to off-white** · Version **1.0** · Revision **2026-11-12**

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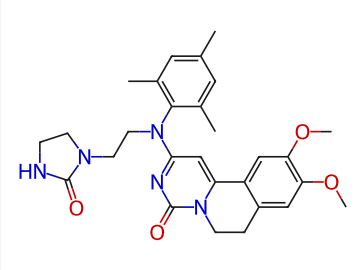
Target	Research area
Phosphodiesterase (PDE)	**Inflammation/Immunology**

Molecular formula	$C_{28}H_{33}N_5O_4$
Molecular weight	**503.6030**

STRUCTURE



DESCRIPTION

PDE3/4-IN-2 is a dual PDE3A and PDE4B1 inhibitor, with an IC50 of 0.13 nM against PDE3A and 50 nM against PDE4B1. PDE3/4-IN-2 exhibits higher systemic exposure and longer retention time in lung tissues in ICR mice. PDE3/4-IN-2 can be used in research on respiratory diseases such as asthma and chronic obstructive pulmonary disease, as well as autoimmune inflammation-related studies .

BIOLOGICAL ACTIVITY

In Vitro

PDE3/4-IN-2 (Compound 1) (at 500 nM for PDE3A and 2000 nM for PDE4B1) exhibits an inhibition rate of 100.3% against PDE3A and 82.8% against PDE4B1[1].

PDE3/4-IN-2 (0.005-10000 nM; 15 min (with enzyme); 30 min (with FAM-cAMP); 60 min (with detection solution)) potently inhibits the activity of purified PDE4B1 enzyme, with an IC50 of 50 nM[1].

PDE3/4-IN-2 (0.005-10000 nM; 15 min (with enzyme); 30 min (with FAM-cAMP); 60 min (with detection solution)) potently inhibits the activity of purified PDE3A enzyme, with an IC50 of 0.13 nM[1].

In Vivo

PDE3/4-IN-2 (Compound 1) in ICR mice demonstrates higher systemic exposure and longer pulmonary retention than

Ensifentrine (HY-119708)[1].

SOLUBILITY

Soluble in DMSO : 12.5 mg/mL

REFERENCES

[1]. Li Z Y, et al. Isoquinolone compound and use thereof. WO2022228544A1. WIPO (PCT). 2022-11-03. (https://patents.google.com/patent/WO2022228544A1/en?oq=2022228544)

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