A2AR/A2BR antagonist 1

Cat. No.: HY-158057

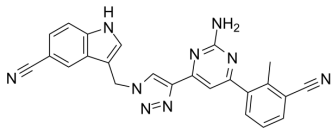
Molecular Formula: $C_{24}H_{17}N_9$

Molecular Weight: 431.45

Target: Adenosine Receptor

Pathway: GPCR/G Protein

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



BIOLOGICAL ACTIVITY

Description

$A_{2A}R/A_{2B}R$ antagonist 1 (compound 7ai) has a dual antagonistic effect on $A_{2A}R/A_{2B}R$, with the IC_{50} values of 11.2 nM and 6.4 nM for $A_{2A}R$ and $A_{2B}R$, respectively. $A_{2A}R/A_{2B}R$ antagonist 1 promotes T cell-mediated cancer cell death[1].

IC_{50} & Target

A2AR	A2BR
11.2 nM (IC_{50})	6.4 nM (IC_{50})

In Vitro

$A_{2A}R/A_{2B}R$ antagonist 1 (compound 7ai) (0.1, 1, 10 μM, 0-48 h) can reverse NECA (HY-103173)-mediated immunosuppression, profoundly promote the activation and killing ability of OT-I CTL cells, thereby exerting anti-cancer activity[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	Human Jurkat T cells
Concentration:	0.1, 1, 10 μM
Incubation Time:	0-48 h
Result:	Almost completely abolished NECA (HY-103173)-induced upregulation of expression of immunosuppressive molecules (PD-1 and TIM-3).

REFERENCES

[1]. Wang H, et al. Subtle Structural Changes across the Boundary between A2AR/A2BR Dual Antagonism and A2BR Antagonism: A Novel Class of 2-Aminopyrimidine-Based Derivatives. J Med Chem. 2024 Mar 28;67(6):5075-5092.

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