Product Datasheet

Taminadenant

Catalog No. **BP-01018** · CAS **1337962-47-6** · Form **free base** · Physical state **solid** · Color **white to off-white** · Version **1.0** · Revision **2026-09-11**

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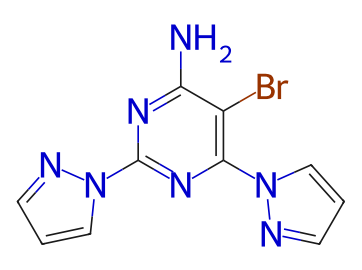
Target	Research area
Adenosine Receptor	**Neurological Disease; Cancer**

Molecular formula	**$C_{10}H_8BrN_7$**
Molecular weight	**306.1210**

STRUCTURE



DESCRIPTION

Taminadenant (NIR178; PBF509) is a highly potent and orally active adenosine A2A receptor (A2AR) antagonist. Taminadenant can antagonize A2AR agonist-mediated cAMP accumulation and impedance responses with KB values of 72.8 nM and 8.2 nM, respectively.

BIOLOGICAL ACTIVITY

Taminadenant (NIR178; PBF509) is a highly potent and orally active adenosine A2A receptor (A2AR) antagonist. Taminadenant can antagonize A2AR agonist-mediated cAMP accumulation and impedance responses with KB values of 72.8 nM and 8.2 nM, respectively. Taminadenant reverses motor impairments in several rat models of movement disorders, including catalepsy, tremor, and hemiparkinsonism. Taminadenant can also inhibit tumor growth when combined with Spartalizumab. Taminadenant reactivate the antitumor immune response.

SOLUBILITY

Soluble in DMSO

In vitro	DMSO : 125 mg/mL

REFERENCES

[1]. Núñez F, et al. PBF509, an Adenosine A2A Receptor Antagonist With Efficacy in Rodent Models of Movement Disorders. Front Pharmacol. 2018 Oct 19;9:1200.

[2]. Chiappori AA, et al. Phase I Study of Taminadenant (PBF509/NIR178), an Adenosine 2A Receptor Antagonist, with or without Spartalizumab (PDR001), in Patients with Advanced Non-Small Cell Lung Cancer. Clin Cancer Res. 2022 Jun 1;28(11):2313-2320.

Tel: +86 20 31130026 · Fax: +86 20 36822386 · tech@biochemprobe.com · www.biochemprobe.com