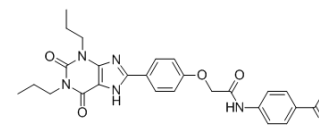


## MRS-1706

|                    |   |       |          |
|--------------------|---|-------|----------|
| Cat. No.:          | HY-103186   |       |          |
| CAS No.:           | 264622-53-9   |       |          |
| Molecular Formula: | C <sub>27</sub> H <sub>29</sub> N <sub>5</sub> O <sub>5</sub> |       |          |
| Molecular Weight:  | 503.55  |       |          |
| Target:            | Adenosine Receptor  |       |          |
| Pathway:           | GPCR/G Protein  |       |          |
| Storage:           | Powder  | -20°C | 3 years  |
|                    |   | 4°C   | 2 years  |
|                    | In solvent  | -80°C | 6 months |
|                    |   | -20°C | 1 month  |



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 6.4 mg/mL (12.71 mM; Need ultrasonic and warming)  
 H<sub>2</sub>O : < 0.1 mg/mL (insoluble)

| Preparing Stock Solutions | Solvent Concentration | Mass      |           |            |
|---------------------------|-----------------------|-----------|-----------|------------|
|                           |                       | 1 mg      | 5 mg      | 10 mg      |
|                           | 1 mM                  | 1.9859 mL | 9.9295 mL | 19.8590 mL |
|                           | 5 mM                  | 0.3972 mL | 1.9859 mL | 3.9718 mL  |
|                           | 10 mM                 | 0.1986 mL | 0.9930 mL | 1.9859 mL  |

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: **10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline**  
 Solubility: 0.64 mg/mL (1.27 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: **10% DMSO >> 90% (20% SBE-β-CD in saline)**  
 Solubility: 0.64 mg/mL (1.27 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: **10% DMSO >> 90% corn oil**  
 Solubility: ≥ 0.64 mg/mL (1.27 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

MRS-1706 is a potent and selective **adenosine A<sub>2B</sub> receptor** inverse agonist. MRS-1706 has K<sub>i</sub> values of 1.39, 112, 157, and 230 nM for human A<sub>2B</sub>, A<sub>2A</sub>, A<sub>1</sub> and A<sub>3</sub> receptors respectively<sup>[1][2]</sup>.

#### IC<sub>50</sub> & Target

K<sub>i</sub>: 1.39 (human A<sub>2B</sub> receptor), 112 (human A<sub>2A</sub> receptor), 157 (human A<sub>1</sub> receptor), 230 nM (human A<sub>3</sub> receptor)<sup>[2]</sup>

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## REFERENCES

- [1]. Li Q, et al. ZM241385, DPCPX, MRS1706 are inverse agonists with different relative intrinsic efficacies on constitutively active mutants of the human adenosine A2B receptor. *J Pharmacol Exp Ther.* 2007 Feb;320(2):637-45.
- [2]. Desai A, et al. Adenosine A2A receptor stimulation increases angiogenesis by down-regulating production of the antiangiogenic matrix protein thrombospondin 1. *Mol Pharmacol.* 2005 May;67(5):1406-13.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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