



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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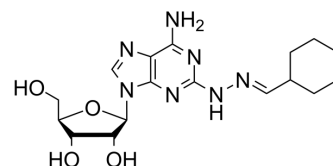
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## Binodenoson

|                    |                                                               |       |          |
|--------------------|---------------------------------------------------------------|-------|----------|
| Cat. No.:          | HY-106450                                                     |       |          |
| CAS No.:           | 144348-08-3                                                   |       |          |
| Molecular Formula: | C <sub>17</sub> H <sub>25</sub> N <sub>7</sub> O <sub>4</sub> |       |          |
| Molecular Weight:  | 391.42                                                        |       |          |
| 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 : 125 mg/mL (319.35 mM; Need ultrasonic)                                                                                             |                                                       |      |           |            |            |
|                                                                               | Preparing Stock Solutions                                                                                                                 | <div><div>Solvent</div><div>Concentration</div></div> | Mass | 1 mg      | 5 mg       | 10 mg      |
|                                                                               |                                                                                                                                           | 1 mM                                                  |      | 2.5548 mL | 12.7740 mL | 25.5480 mL |
|                                                                               |                                                                                                                                           | 5 mM                                                  |      | 0.5110 mL | 2.5548 mL  | 5.1096 mL  |
|                                                                               |                                                                                                                                           | 10 mM                                                 |      | 0.2555 mL | 1.2774 mL  | 2.5548 mL  |
| Please refer to the solubility information to select the appropriate solvent. |                                                                                                                                           |                                                       |      |           |            |            |
| In Vivo                                                                       | 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline<br>Solubility: ≥ 2.08 mg/mL (5.31 mM); Clear solution |                                                       |      |           |            |            |
|                                                                               | 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)<br>Solubility: ≥ 2.08 mg/mL (5.31 mM); Clear solution            |                                                       |      |           |            |            |
|                                                                               | 3. Add each solvent one by one: 10% DMSO >> 90% corn oil<br>Solubility: ≥ 2.08 mg/mL (5.31 mM); Clear solution                            |                                                       |      |           |            |            |

### BIOLOGICAL ACTIVITY

|             |                                                                                                                                                                                                                                                                                                                                |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description | Binodenoson (MRE-0470) is a potent and selective A2A adenosine receptor agonist (K <sub>D</sub> =270 nM). Binodenoson is being developed as a short-acting coronary vasodilator as an adjunct to radiotracers for use in myocardial stress imaging <sup>[1]</sup> .                                                            |
| In Vitro    | Binodenoson (MRE-0470) (30-300 nM) decreases oxidative activity of tumor necrosis factor-α-primed FMLP-stimulated polymorphonuclear leukocytes in human whole blood and acts synergistically with Rolipram <sup>[1]</sup> .<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

## In Vivo

Binodenoson (infused 0-0.9 µg/kg/h; adult Wistar rat; rat bacterial meningitis model), with or without rolipram (0-0.01 µg/kg/h), inhibits pleocytosis and reduces the lipopolysaccharide-induced increase in blood-brain barrier permeability (BBBP), indicative of decreased neutrophil-induced damage<sup>[1]</sup>.

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

## REFERENCES

- [1]. Sullivan GW, et al. Neutrophil A2A adenosine receptor inhibits inflammation in a rat model of meningitis: synergy with the type IV phosphodiesterase inhibitor, rolipram. J Infect Dis. 1999;180(5):1550-1560.
- [2]. Glover DK, et al. Pharmacological stress thallium scintigraphy with 2-cyclohexylmethylidenehydrazinoadenosine (WRC-0470). A novel, short-acting adenosine A2A receptor agonist. Circulation. 1996;94(7):1726-1732.

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

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