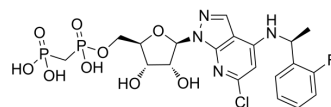


AB-680

| | |
|--------------------|--|
| Cat. No.: | HY-125286 |
| CAS No.: | 2105904-82-1 |
| Molecular Formula: | C ₂₀ H ₂₄ ClFN ₄ O ₉ P ₂ |
| Molecular Weight: | 580.82 |
| Target: | CD73 |
| Pathway: | Immunology/Inflammation |
| Storage: | -20°C, stored under nitrogen * In solvent : -80°C, 1 years; -20°C, 6 months (stored under nitrogen) |



SOLVENT & SOLUBILITY

In Vitro

DMSO : 200 mg/mL (344.34 mM; Need ultrasonic)
H₂O : 5 mg/mL (8.61 mM; ultrasonic and warming and heat to 60°C)

| Preparing Stock Solutions | Solvent Concentration | Mass | | |
|---------------------------|-----------------------|-----------|-----------|------------|
| | | 1 mg | 5 mg | 10 mg |
| | 1 mM | 1.7217 mL | 8.6085 mL | 17.2170 mL |
| | 5 mM | 0.3443 mL | 1.7217 mL | 3.4434 mL |
| | 10 mM | 0.1722 mL | 0.8609 mL | 1.7217 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: ≥ 7.5 mg/mL (12.91 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 7.5 mg/mL (12.91 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 7.5 mg/mL (12.91 mM); Clear solution
- Add each solvent one by one: 5% DMSO >> 40% PEG300 >> 5% Tween-80 >> 50% saline
Solubility: ≥ 2.5 mg/mL (4.30 mM); Clear solution
- Add each solvent one by one: 5% DMSO >> 95% (20% SBE-β-CD in saline)
Solubility: 2.5 mg/mL (4.30 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 1% DMSO >> 99% saline
Solubility: ≥ 0.5 mg/mL (0.86 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

AB-680 is a highly potent, reversible and selective inhibitor of CD73 (an ecto-nucleotidase), with a K_i of 4.9 pM for hCD73,

| | |
|-------------------------------------|--|
| | displays >10,000-fold selectivity over related ecto-nucleotidases CD39. Anti-tumor activity ^[1] . |
| IC₅₀ & Target | Ki: 4.9 pM (hCD73) ^[1] IC50: 43 pM (Soluble hCD73) ^[1] |
| In Vitro | AB-680 (AB680) inhibits soluble hCD73 with an IC ₅₀ of 0.043 nM, also inhibits hCD73 in CHO cells, suppresses CD73 in human, mouse CD8 ⁺ T Cells and hPBMC, with IC ₅₀ s of 0.070, 0.008, 0.66 and 0.011 nM, respectively ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

CUSTOMER VALIDATION

- Nat Commun. 2023 Jun 8;14(1):3364.
- Adv Sci (Weinh). 2023 Oct 22:e2302498.
- J Immunother Cancer. 2021 Jul;9(7):e002503.
- Cancer Immunol Res. 2022 Nov 21;CIR-22-0260.
- Front Immunol. 2022, 13: Online ahead of print.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Lawson KV, et al. Discovery and Characterization of AB680, a Potent and Selective Small-Molecule CD73 Inhibitor for Cancer Immunotherapy.

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

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