

# PRODUCT INFORMATION

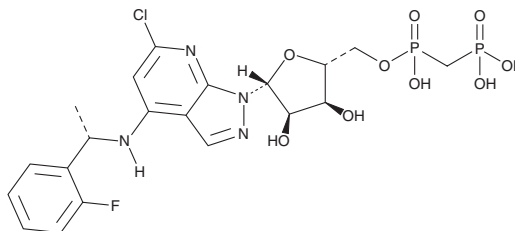


## AB-680

Item No. 32798

**CAS Registry No.:** 2105904-82-1  
**Formal Name:** 6-chloro-N-[(1S)-1-(2-fluorophenyl)ethyl]-1-[5-O-[hydroxy(phosphonomethyl)phosphinyl]-β-D-ribofuranosyl]-1H-pyrazolo[3,4-b]pyridin-4-amine

**Synonym:** Quemliclustat  
**MF:** C<sub>20</sub>H<sub>24</sub>ClFN<sub>4</sub>O<sub>9</sub>P<sub>2</sub>  
**FW:** 580.8  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 271, 306 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

AB-680 is supplied as a solid. A stock solution may be made by dissolving the AB-680 in the solvent of choice, which should be purged with an inert gas. AB-680 is soluble in DMSO.

### Description

AB-680 is an inhibitor of ecto-5'-nucleotidase, also known as CD73 (IC<sub>50</sub> = 0.043 nM in CHO cells expressing the human enzyme).<sup>1</sup> It is selective for ecto-5'-nucleotidase over nucleoside triphosphate diphosphorylase 1 (NTPDase 1), NTPDase 2, NTPDase 3, and NTPDase 8 (IC<sub>50</sub>s = >10 μM for all). AB-680 also inhibits ecto-5'-nucleotidase activity in isolated human and mouse CD8<sup>+</sup> T cells and isolated human peripheral blood mononuclear cells (PBMCs; IC<sub>50</sub>s = 0.008, 0.66, and 0.011 nM, respectively). It reverses AMP-induced decreases in the proliferation of, and IFN-γ and granzyme B secretion by, isolated human CD4<sup>+</sup> and CD8<sup>+</sup> T cells when used at a concentration of 200 nM.<sup>2</sup> AB-680 (10 mg/kg) reduces tumor volume in a B16/F10 murine melanoma model alone and in combination with an antibody targeting programmed cell death protein 1 (PD-1).

### References

1. Lawson, K.V., Kalisiak, J., Lindsey, E.A., *et al.* Discovery of AB680: A potent and selective inhibitor of CD73. *J. Med. Chem.* **63**(20), 11448-11468 (2020).
2. Piovesan, D., Tan, J.B.L., Becker, A., *et al.* Targeting CD73 with AB680 (quemliclustat), a novel and potent small-molecule CD73 inhibitor, restores immune functionality and facilitates antitumor immunity. *Mol. Cancer Ther.* **21**(6), 948-959 (2022).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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