

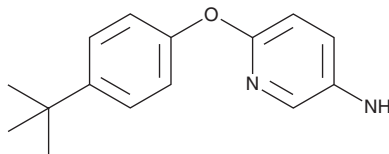
# PRODUCT INFORMATION



## CB-103

Item No. 36293

**CAS Registry No.:** 218457-67-1  
**Formal Name:** 6-[4-(1,1-dimethylethyl)phenoxy]-3-pyridinamine  
**MF:** C<sub>15</sub>H<sub>18</sub>N<sub>2</sub>O  
**FW:** 242.3  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 245 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

CB-103 is supplied as a solid. A stock solution may be made by dissolving the CB-103 in the solvent of choice, which should be purged with an inert gas. CB-103 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of CB-103 in these solvents is approximately 20, 5, and 11 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of CB-103 can be prepared by directly dissolving the solid in aqueous buffers. The solubility of CB-103 in PBS (pH 7.2) is approximately 0.25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

CB-103 is an inhibitor of Notch signaling.<sup>1</sup> It binds to the b-trefoil domain (BTD) of recombination signal binding protein for immunoglobulin kappa J region (RBPJ) and inhibits the assembly of the RBPJ-Notch intracellular domain (NICD) transcription complex. CB-103 inhibits ligand-induced Notch signaling in HeLa cells expressing mouse Notch1, -2, -3, or -4 (IC<sub>50</sub>s = 1.5, 0.9, 1.1, and 2.9 μM, respectively). It reduces expression of the Notch target genes *HES1*, *MYC*, and *DTX1* in RPMI-8402 T cell acute lymphoblastic leukemia (T-ALL) cells. *In vivo*, CB-103 (25 mg/kg) reduces tumor volume and increases survival in an HCC-1187 mouse xenograft model.

### Reference

1. Lehal, R., Zaric, J., Vigolo, M., *et al.* Pharmacological disruption of the Notch transcription factor complex. *Proc. Natl. Acad. Sci. USA* **117(28)**, 16292-16301 (2020).

#### 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.

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