

# PRODUCT INFORMATION

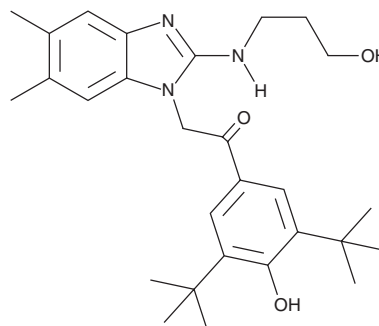


**CID-2858522**

Item No. 14122

**CAS Registry No.:** 758679-97-9  
**Formal Name:** 1-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2-[2-[(3-hydroxypropyl)amino]-5,6-dimethyl-1H-benzimidazol-1-yl]-ethanone

**Synonym:** ML-029  
**MF:** C<sub>28</sub>H<sub>39</sub>N<sub>3</sub>O<sub>3</sub>  
**FW:** 465.6  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 215, 254, 292 nm  
**Supplied as:** A crystalline 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

CID-2858522 is supplied as a crystalline solid. A stock solution may be made by dissolving the CID-2858522 in the solvent of choice, which should be purged with an inert gas. CID-2858522 is soluble in organic solvents such as ethanol and DMSO. The solubility of CID-2858522 in these solvents is approximately 5 mg/ml.

CID-2858522 is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

## Description

CID-2858522 is a 2-amino benzimidazole that inhibits activation of the NF-κB pathway induced by the PKC activator PMA with an IC<sub>50</sub> value of 0.07 μM.<sup>1</sup> It has been shown to inhibit IL-8 production induced by PKC activators in HEK293 cells (IC<sub>50</sub> ≤ 0.1 μM), attenuate CD3/CD28 and PMA/ionomycin-induced production of IL-2 by Jurkat T cells (IC<sub>50</sub> ≤ 5 μM), and prevent anti-IgM-stimulated proliferation of mouse B-lymphocytes (IC<sub>50</sub> = ~2 μM).<sup>1</sup> CID-2858522 does not, however, inhibit the NF-κB pathway activated by TNF-α.<sup>1</sup>

## Reference

1. Peddibhotla, S., Shi, R., Khan, P., *et al.* Inhibition of protein kinase C-driven nuclear factor-κB activation: Synthesis, structure-activity relationship, and pharmacological profiling of pathway specific benzimidazole probe molecules. *J. Med. Chem.* **53**(12), 4793-4797 (2010).

### 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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