# **PRODUCT INFORMATION**



## **TMCB**

Item No. 27652

CAS Registry No.: 1085822-09-8

Formal Name: 4,5,6,7-tetrabromo-2-(dimethylamino)-1H-

benzimidazole-1-acetic acid

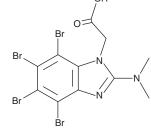
MF:  $C_{11}H_9Br_4N_3O_2$ 

FW: 534.8 **Purity:** ≥98%

 $\lambda_{max}$ : 240, 274 nm A crystalline solid UV/Vis.: Supplied as:

-20°C Storage: Stability: ≥4 years

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



## **Laboratory Procedures**

TMCB is supplied as a crystalline solid. A stock solution may be made by dissolving the TMCB in the solvent of choice, which should be purged with an inert gas. TMCB is soluble in the organic solvent DMSO at a concentration of approximately 25 mM.

## Description

TMCB is a dual inhibitor of casein kinase 2 (CK2) and ERK8 (IC<sub>50</sub> = 0.5  $\mu$ M for both).<sup>1</sup> It also binds to Pim-1, HIPK2, and DYRK1A (K,s = 8.65, 15.25, and 11.9 μM, respectively) and inhibits greater than 50% of the activity of five kinases, including CK2, ERK8, and DYRK2, in a panel of 78 kinases at 10 µM. TMCB induces apoptosis in Jurkat cells when used at concentrations ranging from 10 to 50 μM.

### References

1. Pagano, M.A., Bain, J., Kazimierczuk, Z., et al. The selectivity of inhibitors of protein kinase CK2: An update. Biochem. J. 415(3), 353-365 (2008).

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

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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