

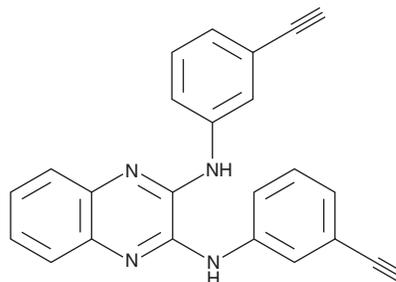
# PRODUCT INFORMATION



## TD52

Item No. 37744

**CAS Registry No.:** 1798328-24-1  
**Formal Name:** N<sup>2</sup>,N<sup>3</sup>-bis(3-ethynylphenyl)-2,3-quinoxalinediamine  
**MF:** C<sub>24</sub>H<sub>16</sub>N<sub>4</sub>  
**FW:** 360.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 237, 246, 277, 366 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

TD52 is supplied as a solid. A stock solution may be made by dissolving the TD52 in the solvent of choice, which should be purged with an inert gas. TD52 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of TD52 in these solvents is approximately 5 mg/ml.

### Description

TD52 is a derivative of the EGFR tyrosine kinase inhibitor erlotinib (Item Nos. 10483 | 35517).<sup>1</sup> It decreases the viability of HA22T, Hep3B, PLC/PRF/5, and SK-HEP-1 hepatocellular carcinoma cells (IC<sub>50</sub>s = 0.9, 0.9, 0.8, and 1.2 μM, respectively). TD52 induces apoptosis in a variety of cancer cells, including HA22T and Hep3B hepatocellular carcinoma and HCC1937 and MDA-MB-231 triple-negative breast cancer cells in a concentration-dependent manner.<sup>1,2</sup> TD52 (10 mg/kg per day) increases intratumoral protein phosphatase 2A (PP2A) activity, reduces intratumoral cancerous inhibitor of PP2A (CIP2A) and phosphorylated Akt levels, and reduces tumor growth in a PLC/PRF/5 mouse xenograft model.<sup>1</sup>

### References

1. Yu, H.-C., Hung, M.-H., Chen, Y.-L., *et al.* Erlotinib derivative inhibits hepatocellular carcinoma by targeting CIP2A to reactivate protein phosphatase 2A. *Cell Death Dis.* **5(7)**, e1359 (2014).
2. Liu, C.-Y., Huang, T.-T., Huang, C.-T., *et al.* EGFR-independent Elk1/CIP2A signalling mediates apoptotic effect of an erlotinib derivative TD52 in triple-negative breast cancer cells. *Eur. J. Cancer* **72**, 112-123 (2017).

#### 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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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM