

# PRODUCT INFORMATION

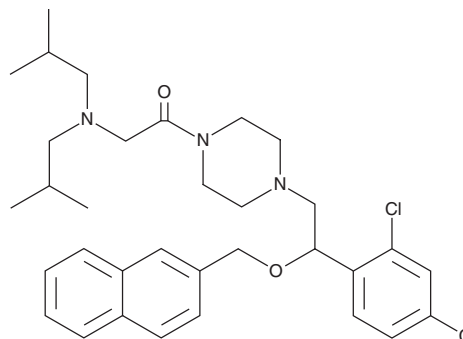


## LYN-1604

Item No. 24007

**CAS Registry No.:** 2088939-99-3  
**Formal Name:** 2-[bis(2-methylpropyl)amino]-1-[4-[2-(2,4-dichlorophenyl)-2-(2-naphthalenylmethoxy)ethyl]-1-piperazinyl]-ethanone

**MF:** C<sub>33</sub>H<sub>43</sub>Cl<sub>2</sub>N<sub>3</sub>O<sub>2</sub>  
**FW:** 584.6  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 226 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

LYN-1604 is supplied as a crystalline solid. A stock solution may be made by dissolving the LYN-1604 in the solvent of choice. LYN-1604 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of LYN-1604 in ethanol and DMF is approximately 30 mg/ml and approximately 20 mg/ml in DMSO.

LYN-1604 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, LYN-1604 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. LYN-1604 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

LYN-1604 is an activator of unc-51-like kinase 1 (ULK1; EC<sub>50</sub> = 18.94 nM).<sup>1</sup> It increases Beclin 1, LC3-II, and total LC3 protein levels and reduces levels of p62 in human MDA-MB-231 triple-negative breast cancer (TNBC) cells in a concentration-dependent manner, indicating an increase in autophagy. It also increases the cleavage of the pro-apoptotic protein caspase-3. LYN-1604 decreases the viability of MDA-MB-231 cells *in vitro* (IC<sub>50</sub> = 1.66 μM), an effect that can be reversed by the autophagy inhibitor 3-methyladenine (3-MA; Item No. 13242). LYN-1604 (25, 50, and 100 mg/kg) reduces tumor growth in an MDA-MB-231 mouse xenograft model.

### Reference

1. Zhang, L., Fu, L., Zhang, S., *et al.* Discovery of a small molecule targeting ULK1-modulated cell death of triple negative breast cancer *in vitro* and *in vivo*. *Chem. Sci.* **8**(4), 2687-2701 (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.

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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