

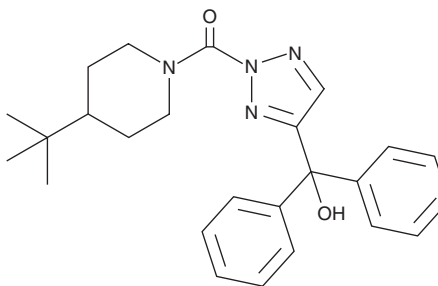
# PRODUCT INFORMATION



**ML-211**

Item No. 17630

**CAS Registry No.:** 2205032-89-7  
**Formal Name:** [4-(1,1-dimethylethyl)-1-piperidiny]  
[4-(hydroxydiphenylmethyl)-2H-  
1,2,3-triazol-2-yl]-methanone  
**MF:** C<sub>25</sub>H<sub>30</sub>N<sub>4</sub>O<sub>2</sub>  
**FW:** 418.5  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 240 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



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

## Laboratory Procedures

ML-211 is supplied as a crystalline solid. A stock solution may be made by dissolving the ML-211 in the solvent of choice, which should be purged with an inert gas. ML-211 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ML-211 in ethanol is approximately 10 mg/ml and approximately 30 mg/ml in DMSO and DMF.

ML-211 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

Lysophospholipase 1 (LYPLA1) is a protein palmitoyl thioesterase responsible for depalmitoylation of the oncogene HRas.<sup>1,2</sup> Palmitoylation of such oncogenes is thought to be required for trafficking and malignant transformation, making LYPLA1 a target for downregulating oncogenic signaling.<sup>1,2</sup> ML-211 is a carbamate-based dual inhibitor of LYPLA1 (IC<sub>50</sub> = 17 nM) and the related LYPLA2 (IC<sub>50</sub> = 30 nM).<sup>3</sup> It can also inhibit the serine hydrolase ABHD11 with an IC<sub>50</sub> value of 10 nM but is ≥ 50-fold selective for LYPLA in a panel of 20 additional serine hydrolases.<sup>3</sup>

## References

1. Martin, B.R. and Cravatt, B.F. Large-scale profiling of protein palmitoylation in mammalian cells. *Nat. Methods* **6**(2), 135-138 (2009).
2. Dekker, F.J., Rocks, O., Vartak, N., et al. Small-molecule inhibition of APT1 affects Ras localization and signaling. *Nat. Chem. Biol.* **6**, 449-456 (2010).
3. Adibekian, A., Martin, B.R., Speers, A.E., et al. Optimization and characterization of a triazole urea dual inhibitor for lysophospholipase 1 (LYPLA1) and lysophospholipase 2 (LYPLA2), in Probe Reports from the NIH Molecular Libraries Program [Internet], 1 R01 CA132630, 1 (2013).

### 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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