

# PRODUCT INFORMATION



## ADTL-EI1712

Item No. 30602

**CAS Registry No.:** 2414916-45-1  
**Formal Name:** 2-[(2-chlorobenzoyl)amino]-6-[[[(2-chlorophenyl)amino]thioxomethyl]-4,5,6,7-tetrahydrothieno[2,3-c]pyridine-3-carboxamide

**MF:** C<sub>22</sub>H<sub>18</sub>Cl<sub>2</sub>N<sub>4</sub>O<sub>2</sub>S<sub>2</sub>

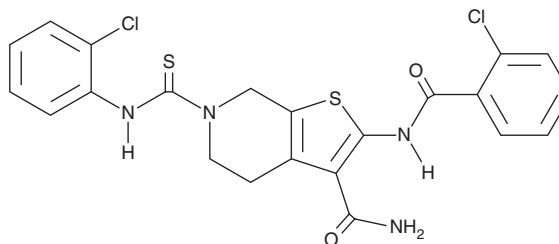
**FW:** 505.4

**Purity:** ≥98%

**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

ADTL-EI1712 is supplied as a crystalline solid. A stock solution may be made by dissolving the ADTL-EI1712 in the solvent of choice, which should be purged with an inert gas. ADTL-EI1712 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of ADTL-EI1712 in these solvents is approximately 1 mg/ml.

ADTL-EI1712 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ADTL-EI1712 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. ADTL-EI1712 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

ADTL-EI1712 is a dual inhibitor of ERK1 and ERK5 (IC<sub>50</sub>s = 40.43 and 64.5 nM, respectively).<sup>1</sup> It reduces ERK1 and ERK5 activity by 93.5 and 89.4%, respectively, but also inhibits ERK2 activity by 92.7%, in a panel of 100 kinases at 1 μM. ADTL-EI1712 inhibits proliferation of HL-60 and MKN74, but not HeLa, cancer cells (IC<sub>50</sub>s = 1.26, 2.55, and >50 μM, respectively). It reduces tumor growth and intratumor phosphorylation of ERK1/2 and ERK5 in an MKN74 mouse xenograft model when administered at a dose of 50 mg/kg per day.

### Reference

1. Wang, G., Zhao, Y., Liu, Y., *et al.* Discovery of a novel dual-target inhibitor of ERK1 and ERK5 that induces regulated cell death to overcome compensatory mechanism in specific tumor types. *J. Med. Chem.* **63**(8), 3976-3995 (2020).

#### 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