

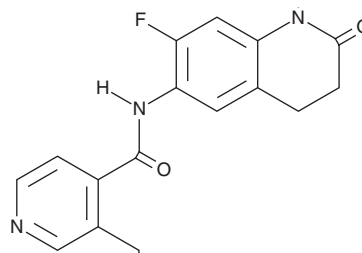
# PRODUCT INFORMATION



## KOTX1

Item No. 42249

**CAS Registry No.:** 1788963-83-6  
**Formal Name:** 3-ethyl-N-(7-fluoro-1,2,3,4-tetrahydro-2-oxo-6-quinoliny)-4-pyridinecarboxamide  
**MF:** C<sub>17</sub>H<sub>16</sub>FN<sub>3</sub>O<sub>2</sub>  
**FW:** 313.3  
**Purity:** ≥95%  
**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

KOTX1 is supplied as a solid. A stock solution may be made by dissolving the KOTX1 in the solvent of choice, which should be purged with an inert gas. KOTX1 is slightly soluble (0.1-1 mg/ml) in acetonitrile.

KOTX1 is slightly soluble (0.1-1 mg/ml) 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

KOTX1 is an inhibitor of aldehyde dehydrogenase 1A3 (ALDH1A3; IC<sub>50</sub> = 5.14 nM).<sup>1</sup> It potentiates glucose-induced insulin secretion from pancreatic islets isolated from patients with type 2 diabetes when used at a concentration of 10 μM. KOTX1 (40 mg/kg per day) decreases plasma insulin levels and reduces blood glucose levels in an intraperitoneal glucose tolerance test (IPGTT) in diabetic *db/db* male mice. It decreases blood glucose levels and increases plasma insulin levels in a mouse model of obesity induced by a high-fat diet when administered in the diet at 270 ppm.

### Reference

1. Son, J., Du, W., Esposito, M., *et al.* Genetic and pharmacologic inhibition of ALDH1A3 as a treatment of β-cell failure. *Nat. Commun.* **14**(1), 558 (2023).

#### 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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