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## Product Data Sheet

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Product Name: ML-095 (hydrochloride)

Cat. No.: GC10850

### Chemical Properties

Cas. No. 1135318-57-8

Chemical Name 1-(3,4-dihydroxyphenyl)-2-(2-ethyl-1H-imidazol-1-yl)-ethanone, monohydrochloride

SMILES OC1=CC=C(C(CN2C=CN=C2CC)=O)C=C1O.Cl

Formula  $C_{13}H_{14}N_2O_3 \cdot HCl$  M.Wt 282.7

Solubility  $\leq 10\text{mg/ml}$  in DMSO Storage Store at  $-20^\circ\text{C}$

General tips For obtaining a higher solubility, please warm the tube at  $37^\circ\text{C}$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^\circ\text{C}$  for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure

### Background

ML-095 (hydrochloride) is a specific PLAP inhibitor [1].

Alkaline phosphatases are hydrolase enzymes responsible for removing phosphate groups from many types of molecules, including nucleotides, proteins, and alkaloids. There are three isozymes of alkaline phosphatases: placental alkaline phosphatase (PLAP), intestinal alkaline phosphatase (IAP), and tissue non-specific alkaline phosphatase (TNAP). Placental alkaline phosphatase (PLAP) is highly expressed in primate placental tissue and the biological function is still unknown. However, PLAP-like enzymes are detected in serum of patients with primary testicular tumors, in particular seminoma and other cancers [1].

ML-095 (CID-25067483) is a biochemical inhibitor of PLAP and will be useful to elucidate the key biological functions and natural substrates of human PLAP. ML095 is a specific PLAP inhibitor and inhibited PLAP, TNAP and IAP with IC<sub>50</sub> values of 2.1, >100 and 53  $\mu\text{M}$ , respectively. ML095 exhibited greater than 25-fold selectivity over tissue non-

**Caution: Product has not been fully validated for medical applications. For research use only.**

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specific alkaline phosphatase (TNAP) and intestinal alkaline phosphatase (IAP) [1].

Reference:

[1]. Lanier M, Cashman J, Sergienko E, et al. Placental Alkaline Phosphatase (PLAP) Luminescent HTS assay - Probe 2.

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