

Certificate of Analysis

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Product Name: INDY

Catalog No.: 4997

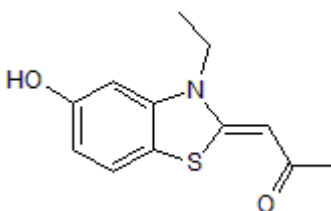
Batch No.: 2

CAS Number: 1169755-45-6

IUPAC Name: (1Z)-1-(3-Ethyl-5-hydroxy-2(3H)-benzothiazolylidene)-2-propanone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₂H₁₃NO₂S
Batch Molecular Weight: 235.3
Physical Appearance: Pale yellow solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.34 (Dichloromethane:Methanol [95:5])
HPLC: Shows >99.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	61.25	5.57	5.95
Found	61.17	5.41	5.89

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

DYRK1A/B inhibitor (IC₅₀ values are 0.23 and 0.24 μM, for DYRK1B and DYRK1A respectively). Binds at the ATP-binding cleft of the enzyme. Reverses aberrant tau-phosphorylation and rescues repressed calcineurin/NFAT signaling. Impairs the self-renewal capacity of subventricular zone neural stem cells. Also available as a prodrug, proINDY (Cat. No. 4998).

Physical and Chemical Properties:

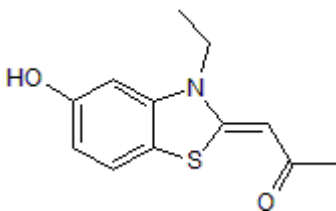
Batch Molecular Formula: C₁₂H₁₃NO₂S

Batch Molecular Weight: 235.3

Physical Appearance: Pale yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Pozo et al (2013) Inhibition of DYRK1A destabilizes EGFR and reduces EGFR-dependent glioblastoma growth. *J.Clin.Invest.* **123** 2475. PMID: 23635774.

Ogawa et al (2010) Development of a novel selective inhibitor of the Down syndrome-related kinase Dyrk1A. *Nat.Comm.* **1** 86. PMID: 20981014.

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