

Certificate of Analysis

Print Date: Dec 14th 2022

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Product Name: (R)-CE3F4 Catalog No.: 5969 Batch No.: 1

CAS Number: 1593478-56-8

IUPAC Name: (2R)-5,7-Dibromo-6-fluoro-3,4-dihydro-2-methyl-1(2H)-quinolinecarboxaldehyde

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁H₁₀Br₂FNO

Batch Molecular Weight: 351.01

Physical Appearance: White solid

Solubility: DMSO to 100 mM

ethanol to 50 mM

Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.33 (20\% EtOAc/petrol)$

HPLC: Shows 98.4% purity
Chiral HPLC: Shows >99.9% purity

1H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Optical Rotation: $[\alpha]_D = -14.3$ (Concentration = 1, Solvent = Chloroform)

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 37.64 2.87 3.99 Found 37.76 2.81 3.9

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Product Information

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IUPAC Name: (2R)-5,7-Dibromo-6-fluoro-3,4-dihydro-2-methyl-1(2H)-quinolinecarboxaldehyde

Description:

(R)-CE3F4 is an Epac inhibitor (IC50 values are 4.2 and 44 μM for Epac1 and Epac2(B), respectively). Blocks activation of Epac by cAMP. This is the R-enantiomer of CE3F4 (Cat.No.4793).

Physical and Chemical Properties:

Batch Molecular Formula: C₁₁H₁₀Br₂FNO

Batch Molecular Weight: 351.01 Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM ethanol to 50 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.

Licensing Information:

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References:

Boulton et al (2018) Mechanism of selective enzyme inhibition through uncompetitive regulation of an allosteric agonist. J.Am.Chem.Soc. 140 9624. PMID: 30016089.

Courilleau et al (2013) The (R)-enantiomer of CE3F4 is a preferential inhibitor of human exchange protein directly activated by cyclic AMP isoform 1 (Epac1). Biochem.Biophys.Res.Commun. 440 443. PMID: 24099776.

Tel: +44 (0)1235 529449 www.tocris.com/distributors Tel:+1 612 379 2956