

Product Name: CS 640

Catalog No.: 7982

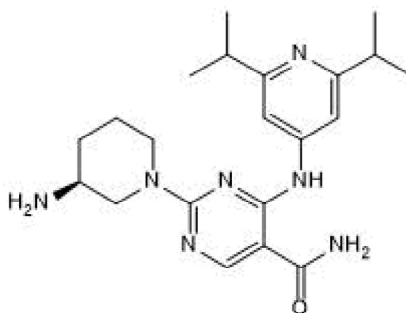
Batch No.: 1

CAS Number: 2388506-83-8

IUPAC Name: 2-[(3S)-3-Amino-1-piperidiny]-4-[[2,6-bis(1-methylethyl)-4-pyridinyl]amino]-5-pyrimidinecarboxamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₁H₃₁N₇O.
Batch Molecular Weight: 397.53
Physical Appearance: Off White solid
Solubility: DMSO to 20 mM
 ethanol to 10 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.5% purity
Chiral HPLC: Shows 99.8% purity
¹H NMR: Consistent with structure
 Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	63.45	7.86	24.66
Found	62.42	7.57	24.69

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

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Description:

CS 640 is a potent calmodulin-dependent kinase (CAMK) inhibitor (IC₅₀ values are 1 nM, 1 nM, 3 nM and 8 nM at CAMK1A, CAMK1G, CAMK1B and CAMK1D respectively). Improves insulin sensitivity and glucose control in a mouse model of diet-induced obesity. Orally bioavailable in rodents.

Physical and Chemical Properties:

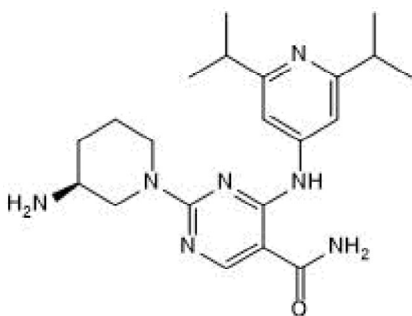
Batch Molecular Formula: C₂₁H₃₁N₇O.

Batch Molecular Weight: 397.53

Physical Appearance: Off White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 20 mM

ethanol to 10 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

This probe is supplied in conjunction with the Structural Genomics Consortium. For further characterization details, please visit the CS 640 probe summary on the SGC website.

References:

Fromont et al (2020) Discovery of highly selective inhibitors of calmodulin-dependent kinases that restore insulin sensitivity in the diet-induced obesity *in vivo* mouse model. *J.Med.Chem.* **63** 6784. PMID: 32433887.

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