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Print Date: Jun 12th 2024

Certificate of Analysis

www.tocris.com

Batch No.: 2

Catalog No.: 7783

Product Name: Upadacitinib

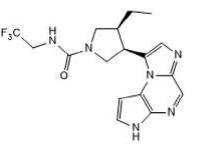
CAS Number: 1310726-60-3

IUPAC Name: (3S,4R)-3-Ethyl-4-(3H-imidazo[1,2-a]pyrrolo[2,3-e]pyrazin-8-yl)-N-(2,2,2-trifluoroethyl)-1-pyrrolidinecarboxamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: Batch Molecular Weight: Physical Appearance: Solubility: $C_{17}H_{19}F_3N_6O.1/_4H_2O$ 384.87 Off White solid DMSO to 100 mM ethanol to 50 mM Store at -20°C

Storage: **Batch Molecular Structure:**



2. ANALYTICAL DATA

HPLC: ¹H NMR: Mass Spectrum: Microanalysis: Shows 99.7% purity Consistent with structure Consistent with structure Carbon Hydrogen Nitrogen Theoretical 53.05 5.11 21.84 Found 52.41 5.2 21.23

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

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Product Information

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2

Product Name: Upadacitinib

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Description:

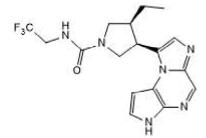
Upadacitinib is a potent and selective JAK1 inhibitor (IC₅₀ = 47 nM). In a cellular assay, Upadacitinib shows selectivity for JAK1 over JAK2, JAK3 and TYK2 (IC₅₀ values are 0.014 μ M, 0.593 μ M, 1860 μ M and 2715 μ M). In vivo, Upadacitinib suppresses paw swelling and bone destruction in a rat model of arthritis.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₇H₁₉F₃N₆O.¹/₄H₂O Batch Molecular Weight: 384.87 Physical Appearance: Off 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 $45-60^{\circ}C$ water bath).

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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.

References:

Parmentier *et al* (2018) *In vitro* and *in vivo* characterization of the JAK1 selectivity of upadacitinib (ABT-494). BMC Rheumatol. **2** 23. PMID: 30886973.

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