

Certificate of Analysis

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Product Name: JTV 519 fumarate

Catalog No.: 4564

Batch No.: 2

CAS Number: 1883549-36-7

IUPAC Name: 1-(2,3-Dihydro-7-methoxy-1,4-benzothiazepin-4(5H)-yl)-3-[4-(phenylmethyl)-1-piperidiny]-1-propanone fumarate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₅H₃₂N₂O₂S.C₄H₄O₄

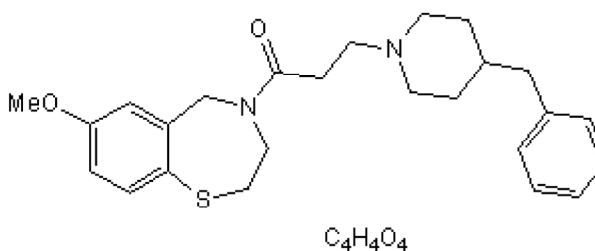
Batch Molecular Weight: 540.67

Physical Appearance: White solid

Solubility: DMSO to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 96.6% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical 64.42 6.71 5.18

Found 64.26 6.78 5.26

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

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Description:

JTV 519 fumarate is a ryanodine receptor (RyR) inhibitor; stabilizes RyR2 in a closed conformation. Exhibits antiarrhythmic and cardioprotective properties in vivo.

Physical and Chemical Properties:

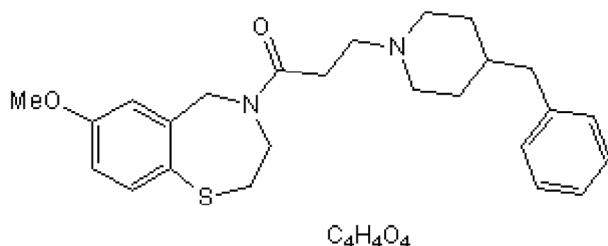
Batch Molecular Formula: C₂₅H₃₂N₂O₂S.C₄H₄O₄

Batch Molecular Weight: 540.67

Physical Appearance: White solid

Minimum Purity: ≥97%

Batch Molecular Structure:



Storage: Store at +4°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. *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:

Ye *et al* (2012) Designing calcium release channel inhibitors with enhanced electron donor properties: stabilizing the closed state of ryanodine receptor type 1. *Mol.Pharmacol.* **81** 53. PMID: 21989257.

Chen *et al* (2008) Effect of K201, a novel antiarrhythmic drug on calcium handling and arrhythmogenic activity of pulmonary vein cardiomyocytes. *Br.J.Pharmacol.* **153** 915. PMID: 17994112.

Hunt *et al* (2007) K201 (JTV519) suppresses spontaneous Ca²⁺ release and [³H]ryanodine binding to RyR2 irrespective of FKBP12.6 association. *Biochem.J.* **404** 431. PMID: 17313373.

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