

# **Certificate of Analysis**

Print Date: Jan 6th 2021

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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-piperidinyl]-1-propanone fumarate

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_{25}H_{32}N_2O_2S.C_4H_4O_4$ 

**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 97.8% purity

<sup>1</sup>H 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



## **Product Information**

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### **Description:**

Ryanodine receptor (RyR) inhibitor; stabilizes RyR2 in a closed conformation. Exhibits antiarrhythmic and cardioprotective properties in vivo.

### **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>25</sub>H<sub>32</sub>N<sub>2</sub>O<sub>2</sub>S.C<sub>4</sub>H<sub>4</sub>O<sub>4</sub>

Batch Molecular Weight: 540.67 Physical Appearance: White solid

### Minimum Purity: ≥98%

### **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. 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:

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 Ca<sup>2+</sup> release and [<sup>3</sup>H]ryanodine binding to RyR2 irrespective of FKBP12.6 association. Biochem.J. *404* 431. PMID: 17313373.

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