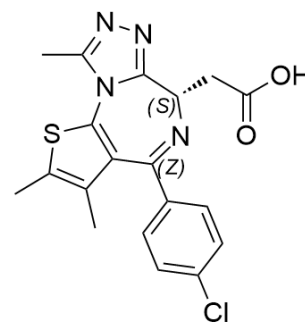


## JQ-1 (carboxylic acid)

<b>Cat. No.:</b>	HY-78695
<b>CAS No.:</b>	202592-23-2
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>17</sub> ClN <sub>4</sub> O <sub>2</sub> S
<b>Molecular Weight:</b>	400.88
<b>Target:</b>	Epigenetic Reader Domain
<b>Pathway:</b>	Epigenetics
<b>Storage:</b>	Powder    -20°C    3 years 4°C        2 years In solvent   -80°C    6 months -20°C    1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 66.67 mg/mL (166.31 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
<b>1 mM</b>	2.4945 mL	12.4726 mL	24.9451 mL
<b>5 mM</b>	0.4989 mL	2.4945 mL	4.9890 mL
<b>10 mM</b>	0.2495 mL	1.2473 mL	2.4945 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (6.24 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (6.24 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (6.24 mM); Clear solution
- Add each solvent one by one: 5% DMSO >> 40% PEG300 >> 5% Tween-80 >> 50% saline  
Solubility: ≥ 2.5 mg/mL (6.24 mM); Clear solution
- Add each solvent one by one: 5% DMSO >> 95% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (6.24 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

JQ-1 carboxylic acid is a (+)-JQ1 derivative (a BET bromodomain inhibitor). JQ-1 carboxylic acid can be used as a precursor to synthesize PROTACs, which targets BET bromodomains<sup>[1]</sup>.

## In Vitro

(+)-JQ-1 is a potent, specific, and reversible BET bromodomain inhibitor, with IC<sub>50</sub>s of 77 and 33 nM for the first and second bromodomain (BRD4(1/2)). (+)-JQ-1 also activates autophagy<sup>[2][3]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## CUSTOMER VALIDATION

- Nat Commun. 2018 Nov 19;9(1):4866.
- Cell Death Dis. 2020 Jun 15;11(6):459.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

- [1]. James Elliott Bradner, et al. Male contraceptive compositions and methods of use. Patent WO 2011143657 A1.
- [2]. Filippakopoulos P, et al. Selective inhibition of BET bromodomains. Nature. 2010 Dec 23;468(7327):1067-73.
- [3]. Sakamaki JI, et al. Bromodomain Protein BRD4 Is a Transcriptional Repressor of Autophagy and Lysosomal Function. Mol Cell. 2017 May 18;66(4):517-532.e9.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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