

#84566 Store at RT	(+)-JQ1	 Orders: 877-616-CELL (2355) orders@cellsignal.com Support: 877-678-TECH (8324) Web: info@cellsignal.com cellsignal.com
	5 mg	
3 Trask Lane Danvers Massachusetts 01923 USA		

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Background

(+)-JQ1 is a potent BET bromodomain inhibitor with IC₅₀ values of 77 nM and 33 nM for BRD4 bromodomain 1 and BRD4 bromodomain 2, respectively. This small molecule competitively binds to the acetyl-lysine recognition pocket of BET bromodomains, which in turn displaces BET proteins from chromatin (1). The BET family of proteins are associated in many different cellular processes, including mitosis, viral/host interaction, and inflammatory gene expression (2-4). Studies have shown that (+)-JQ1 induced autophagy through LKB1/AMPK pathway activation can inhibit bladder cancer (BC) cell proliferation (5).

Molecular Formula

C₂₃H₂₅ClN₄O₂S

Molecular Weight

457 g/mol

Purity

>98%

CAS

1268524-70-4

Solubility

Soluble in DMSO at 60 mg/ml or ethanol at 46 mg/ml.

Storage

Store lyophilized at room temperature, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20°C and use within 2 months to prevent loss of potency. *Aliquot to avoid multiple freeze/thaw cycles.*

Directions for Use:

(+)-JQ1 is supplied as a lyophilized powder. For a 10 mM stock, reconstitute 5 mg of powder in 1.09 ml of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.

Background References

1. Filippakopoulos, P. et al. (2010) *Nature* 468, 1067-73.
2. Huang, B. et al. (2009) *Mol Cell Biol* 29, 1375-87.
3. Abbate, E.A. et al. (2006) *Mol Cell* 24, 877-89.
4. Yang, Z. et al. (2008) *Mol Cell Biol* 28, 967-76.
5. Li, F. et al. (2019) *Cancer Med* 8, 4792-805.

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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