

Store at
RT**(+)-JQ1****#84566**

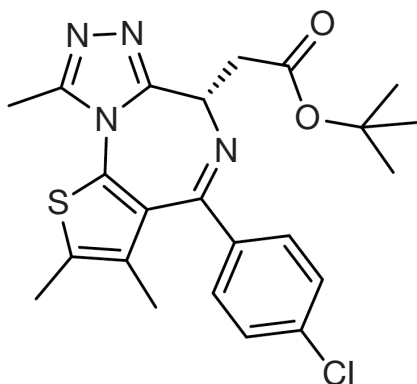
5 mg

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For Research Use Only. Not For Use In Diagnostic Procedures.

Background: (+)-JQ1 is a potent BET bromodomain inhibitor with IC_{50} 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: $C_{25}H_{25}ClN_4O_2S$ **Molecular Weight:** 457.0 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 $-20^{\circ}C$ 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.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.