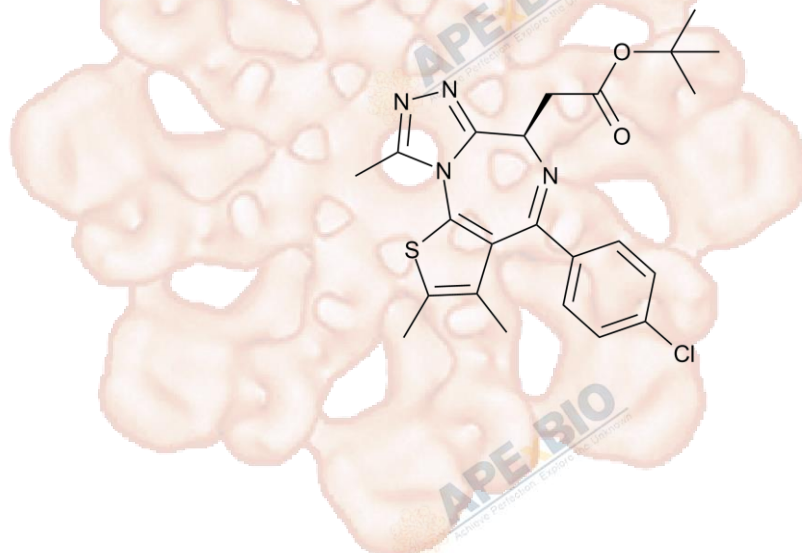


# Product Data Sheet

## (-)-JQ1

<b>Cat. No.:</b>	A8181
<b>CAS No.:</b>	1268524-71-5
<b>Formula:</b>	C23H25ClN4O2S
<b>M.Wt:</b>	456.99
<b>Synonyms:</b>	(-)-JQ1
<b>Target:</b>	Chromatin/Epigenetics
<b>Pathway:</b>	Bromodomain
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

≥22.85 mg/mL in DMSO; insoluble in H<sub>2</sub>O; ≥46.9 mg/mL in EtOH with ultrasonic

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	<b>Concentration</b>			
	<b>1 mM</b>	2.1882 mL	10.9412 mL	21.8823 mL
	<b>5 mM</b>	0.4376 mL	2.1882 mL	4.3765 mL
	<b>10 mM</b>	0.2188 mL	1.0941 mL	2.1882 mL

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

### Biological Activity

Shortsummary

Stereoisomer of (+)-JQ1, used as negative control

IC<sub>50</sub> & Target

~ 50 and 90 nM (BET bromodomain)

In Vitro

#### Cell Viability Assay

Cell Line:	BRD4-dependent NMC cells
Preparation method:	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	250 nM, 72 hours for proliferation inhibition 250 nM, 48 hours for cell-cycle

		arrest induction
	Applications:	In BRD4-dependent NMC cells, differentiation is expectedly accompanied by growth arrest, as demonstrated by reduced Ki67 staining, sustained inhibition of proliferation and G1 cell-cycle arrest. The quantitative RT-PCR for RAD21 and RAN was performed. (-)-JQ1 enantiomer was an inactive control of (+)-JQ1. (+)-JQ1 potently decreased expression of both BRD4 target genes, whereas (-)-JQ1 had no effect.
In Vivo	<b>Animal experiment</b>	
	Animal models:	Female NCr nude mice bearing NMC 797 xenografts
	Dosage form:	Intraperitoneal injection, 50 mg/kg, daily
	Applications:	After 4 days of therapy, mice were evaluated by FDG-PET imaging. A marked reduction in FDG uptake was observed with JQ1 ((+)/-) treatment, whereas vehicle-treated mice demonstrated progressive disease. Tumour-volume measurements confirmed a reduction in tumour growth with JQ1 treatment. JQ1 was well tolerated at this dose and schedule without overt signs of toxicity or weight loss.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

## Product Citations

1. Alfonso-Dunn R, Turner AW, et al. "Transcriptional Elongation of HSV Immediate Early Genes by the Super Elongation Complex Drives Lytic Infection and Reactivation from Latency. Cell Host Microbe." 2017 Apr 12;21(4):507-517.e5.PMID:28407486
2. Alonso, Victoria Lucia, et al. "Overexpression of bromodomain factor 3 in Trypanosoma cruzi (TcBDF3) affects differentiation of the parasite and protects it against bromodomain inhibitors." FEBS Journal (2016).PMID:27007774
3. Peeters, Janneke GC, et al. "Inhibition of Super-Enhancer Activity in Autoinflammatory Site-Derived T Cells Reduces Disease-Associated Gene Expression." Cell reports (2015).PMID:26387944
4. Sengupta, Surojeet, et al. "Inhibition of BET proteins impairs estrogen-mediated growth and transcription in breast cancers by pausing RNA polymerase advancement." Breast cancer research and treatment (2015): 1-14.PMID:25721606

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

## References

- [1] Filippakopoulos P, Qi J, Picaud S, et al. Selective inhibition of BET bromodomains. Nature, 2010, 468(7327): 1067-1073.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**



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Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



## APExBIO Technology

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