DATA SHEET

Product Name:	JQ-1
Catalog #:	CV-1007
Alt:	CAS # 1268524-69-1; (6R,*S*)-4-(4-Chlorophenyl)-2,3,9-trimethyl-6*H*-thieno[3,2*f*][1,2,4]triazolo[4,3-*a*][1,4]diazepine- 6-acetic acid 1,1dimethylethyl ester
Molecular Mass:	457.0
Analysis:	>98% (TLC); NMR (conforms)
Supplied As:	White powder
Resuspension:	May be dissolved in DMSO (9 mg/ml, warm); or ethanol (9 mg/ml, warm)
Storage:	Store desiccated as supplied at ambient temperature for up to 1 year. Store solutions at -20˚C for up to two months.
Description:	JQ1 is a potent BET bromodomain inhibitor. IC_{50} = 17.7, 32.6, 76.9 and 12942 nM respectively for BRD2 (N-terminal (N)), BRD4 (C-terminal (C)), BRD4 (N) and CREBBP respectively (data for + isomer)[1]. Competitive binding by JQ1 displaces the BRD4 fusion oncoprotein from chromatin, prompting squamous differentiation and specific antiproliferative effects in BRD4-dependent cell lines and patient-derived xenograft models[1]. Induces squamous differentiation in NMC cell lines and inhibits tumor growth in NMC xenografts[2]. Blocks inflammation and bone loss in periodontitis[4]. Displays reversible contraceptive effects in male mice[3]. Note this product is racemic (+/-) making the IC_{50} nominally 2 fold greater than literature values for the (+) isomer (offered as a lower cost option).
References:	1. Filippakopoulos, P., et al., (2010) Nature, *468* : 1067 2. Herrmann, H., et al., (2012) Oncotarget, *3* : 1588 3. Matzuk, M.M., et al., (2012) Cell, *150* : 673 4. Meng, S., et al., (2014) J. Dent. Res., *93* : 657

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