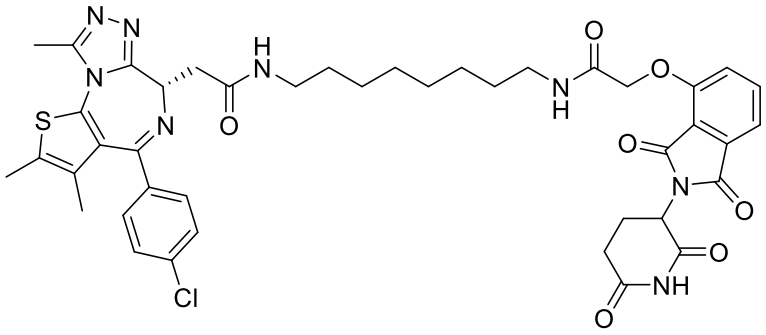
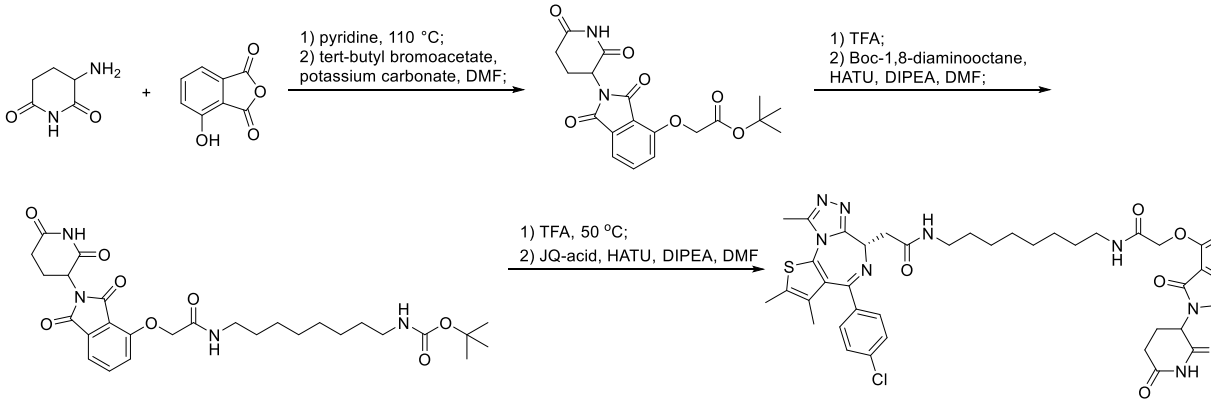
dBET6

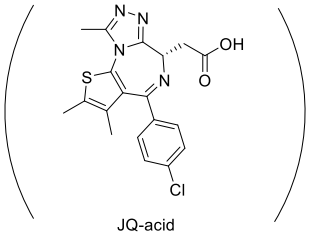


Chemical Formula: $C_{42}H_{45}ClN_8O_7S$
Molecular Weight: 841.38

Category	Parameter	Description
Compound	Name	dBET6
	Citation	Molecular Cell, 2017 Jul 6;67(1):5-18.e19. http://www.cell.com/molecular-cell/fulltext/S1097-2765(17)30406-9
	Chemical descriptors	CC1=NN=C2[C@@H](N=C(C3=CC=C(C=C3)Cl)C4=C(N12)SC(C)=C4C)CC(NCCCCCCCCNC(COC5=CC=CC6=C5C(N(C6=O)C7CCC(NC7=O)=O)=O)=O)=O
	Chemical name	2-((S)-4-(4-chlorophenyl)-2,3,9-trimethyl-6H-thieno[3,2-f][1,2,4]triazolo[4,3-a][1,4]diazepin-6-yl)-N-(8-(2-((2-(2,6-dioxopiperidin-3-yl)-1,3-dioxoisoindolin-4-yl)oxy)acetamido)octyl)acetamide
	Entries in chemical databases	CAS# 1950634-92-0
	Availability	Currently not commercially available
	Papers that use the compounds	https://www.ncbi.nlm.nih.gov/pubmed/?term=dBET6
In vitro profiling	Target (potency)	Binds to BRD4 (BD1) with an IC50 of 14 nM.
	Target (potency)	Induces maximal in vitro heterodimerization of BRD4 (BD1) and CRBN-DDB1 at 35 nM.
	Selectivity	Proteome-wide selectivity for degrading BET family proteins
	Potential reactivity	-
	SAR	-
	Mechanism of inhibition	Target protein degradation
	Structure of target-probe complex	-
	Additional comments	You can delete this line if you don't have anything
Cellular profiling	Validation of cellular target	Time and dose-resolved Western Blots. Effects can vary in different cellular backgrounds. In MV4;11 cells, near-complete degradation of BRD2, BRD3, and BRD4 is observed after 4h treatment at 1 nM.
	Validation of cellular specificity	Expression proteomics via isobaric tagging in MOLT4 (T-ALL) cells. BRD2, BRD3 and BRD4 are the only significantly degraded proteins of a total of 5773 quantified proteins.
Pharmacodynamics		dBET6 induces degradation of BRD4 in vivo, and induced reduced tumor growth in T-ALL xenograft models (SUPT11, MOLT4).
Pharmacokinetics		T_{max}=0.5h, C_{max}=447 (ng/ml), terminal $t_{1/2}$=0.87 h

Synthetic scheme





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