For Research Use Only SBI-0640756



Catalog Number: CM03935

elF DMSO 235 mg/mL C C C C C C C C C C C C C C C C C C C	产品信息	Catalog Number: CM03935 CAS号: 2205871-61-8 分子式: C ₂₃ H ₁₄ CIFN ₂ O ₂ 主要靶点: eIF 主要通路:	分子量: 404.8209 MDL NO: Pubchem ID: 121241171.0 溶解度: 	
主要通路: Water insoluble				
			Water insoluble	

描述

The Eukaryotic Translation Initiation Factor 4 Gamma 1(eIF4G1) is a large scaffolding protein that is a key component of the eIF4F complex, it serves as a scaffold for assembly of cap-dependent translation components in EIF4F complex formation^[1] Elevated eIF4F activity has been linked to resistance to BRAF- and MEK targeted therapies^[2]. SBI-0640756 (SBI-756), which retained the biological effects of the original compound while possessing superior pharmacokinetics. Extended retained the biological effects of the original compound while possessing superior pharmacokinetics. Extended characterization of SBI-756 identified eIF4G1 as its direct target^[3]. SBI-756 impaired the eIF4F complex assembly independently of mTOR and attenuated growth of BRAF-resistant and BRAF-independent melanomas. SBI-756 also suppressed AKT and NF- κ B signaling, but small-molecule derivatives were identified that only marginally affected these pathways while still inhibiting eIF4F complex formation and melanoma growth^[4]. Treatment of DLBCL and MCL cells with SBI-756 synergised with venetoclax to induce apoptosis in vitro, and enhanced venetoclax efficacy in vivo. SBI-756 prevented eIF4E-eIF4G1 association and cap-dependent translation without affecting mTOR substrate phosphorylation. In TOR-KI-resistant DLBCL cells lacking eIF4E binding protein-1, SBI-756 still sensitised to venetoclax. SBI-756 selectively reduced translation of mRNAs encoding ribosomal proteins and translation factors, leading to a reduction in protein synthesis rates in sensitive cells. When normal lymphocytes were treated with SBI-756, only B cells had reduced viability, and this correlated with reduced protein synthesis^[5] protein synthesis^[5].

储存

储存条件: 粉末 -20°C 3年 液体 -80°C 1年

运输条件: Shipped in cold pack



- 1 Praveen Kumar Jaiswal, et al. Eukaryotic Translation Initiation Factor 4 Gamma 1 (EIF4G1): a target for cancer therapeutic intervention? Cancer Cell Int. 2019 Aug 31;19:224.
- 2 Sonenberg N, Hinnebusch AG. Regulation of translation initiation in eukaryotes: mechanisms and biological targets. Cell. 2009; 136(4):731–45.
- 3 Boussemart L, Malka-Mahieu H, Girault I, Allard D, Hemmingsson O, Tomasic G, et al. eIF4F is a nexus of resistance to anti-BRAF and anti-MEK cancer therapies. Nature. 2014; 513(7516):105–9.
- 4 Yongmei Feng, et al. SBI-0640756 Attenuates the Growth of Clinically Unresponsive Melanomas by Disrupting the eIF4F Translation Initiation Complex. Cancer Res. 2015 Dec 15;75(24):5211-8.
- 5 Lee-Or Herzog, et al. Targeting elF4F translation initiation complex with SBI-756 sensitises B lymphoma cells to venetoclax. Br J Cancer. 2021 Mar;124(6):1098-1109.