

产品名称：**AZ-5104**
产品别名：**AZ-5104**

生物活性:										
Description		AZ-5104 is an active, demethylated metabolite of AZD 9291. AZ-5104 is an EGFR inhibitor with IC ₅₀ s of 1, 6, 1, 25 and 7 nM for EGFR ^{L858R/T790M} , EGFR ^{L858R} , EGFR ^{L861Q} , EGFR and ErbB4, respectively.								
IC ₅₀ & Target	EGFR ^{L858R/T790M}	EGFR ^{L858R}	EGFR ^{L861Q}							
	1 nM (IC ₅₀)	1 nM (IC ₅₀)	6 nM (IC ₅₀)							
	EGFR	ErbB4	EGFR ^{Exon 19 deletion/T790M}							
	25 nM (IC ₅₀)	7 nM (IC ₅₀)								
In Vitro		AZ-5104 inhibits EGFR phosphorylation with IC ₅₀ s of 2, 1, 2, 53, and 33 nM in H1975 (EGFR ^{L858R/T790M}), PC-9VanR (EGFR ^{Exon 19 deletion/T790M}), PC-9 (EGFR ^{Exon 19 deletion}), H2073 (WT), and LOVO (WT), respectively. AZ5104 exhibits a reduced selectivity margin against wild-type EGFR when compared to AZD9291. AZ5104 display minimal off-target activity against other non-HER family kinases, but has the potential to target both HER2 and HER4 kinase activity[1].								
In Vivo		The metabolite, AZ5104 (5 mg/kg/day), is effective in shrinking tumors in both C/L858R and C/L+T mice[1].								
Solvent&Solubility					In Vitro: DMSO : ≥ 28 mg/mL (57.66 mM) H₂O : < 0.1 mg/mL (insoluble) * "≥" means soluble, but saturation unknown.					
					<div>Preparing Stock Solutions</div>		<div>Solvent Mass Concentration</div>	1 mg	5 mg	10 mg
							1 mM	2.0594 mL	10.2970 mL	20.5939 mL
							5 mM	0.4119 mL	2.0594 mL	4.1188 mL
							10 mM	0.2059 mL	1.0297 mL	2.0594 mL
					*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液 一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。					
					储备液的保存方式和期限 -80℃, 6 months; -20℃, 1 month。 -80℃ 储存时，请在 6 个月内使用， -20℃ 储存时，请在 1 个月内使用。					
					In Vivo: 请根据您的实验动物和给药方式选择适当的溶解方案。以下溶解方案都请先按照 In Vitro 方式配制澄清的储备液，再依次添加助溶剂： ——为保证实验结果的可靠性，澄清的储备液可以根据储存条件，适当保存；体内实验的工作液，建议您现用现配，当天使用； 以下溶剂前显示的百分比是指该溶剂在您配制终溶液中的体积占比；如在配制过程中出现沉淀、析出现象，可以通过加热和/或超声的方式助溶					
					1.请依序添加每种溶剂： 10% DMSO→40% PEG300 →5% Tween-80 → 45% saline Solubility: ≥ 2.5 mg/mL (5.15 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (5.15 mM, 饱和度未知) 的澄清溶液。 以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 400 μL PEG300 中，混合均匀 向上述体系中加入 50 μL Tween-80，混合均匀；然后继续加入 450 μL 生理盐水定容至 1 mL。					
					2.请依序添加每种溶剂： 10% DMSO→ 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (5.15 mM); Suspended solution; Need ultrasonic					

	<p>此方案可获得 2.5 mg/mL (5.15 mM)的均匀悬浊液，悬浊液可用于口服和腹腔注射。</p> <p>以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 20% 的 SBE-β-CD 生理盐水水溶液中，混合均匀。</p> <p>3.请依序添加每种溶剂： 10% DMSO \rightarrow90% corn oil</p> <p>Solubility: \geq 2.5 mg/mL (5.15 mM); Clear solution</p> <p>此方案可获得 \geq 2.5 mg/mL (5.15 mM，饱和度未知) 的澄清溶液，此方案不适用于实验周期在半个月以上的实验。</p> <p>以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中，混合均匀。</p>
References	[1]. Cross DA, et al. AZD9291, an irreversible EGFR TKI, overcomes T790M-mediated resistance to EGFR inhibitors in lung cancer. Cancer Discov. 2014 Sep;4(9):1046-61.
实验参考：	
Cell Assay	Cells were treated for 2 h with a dose-response of each drug (AZ-5104). Wild-type cells were stimulated for 10 minutes with 25 ng/mL of EGF before lysis. Level of EGFR phosphorylation was quantified in cell extracts using ELISA[1].
References	[1]. Cross DA, et al. AZD9291, an irreversible EGFR TKI, overcomes T790M-mediated resistance to EGFR inhibitors in lung cancer. Cancer Discov. 2014 Sep;4(9):1046-61.

源叶生物