

产品名称: **2-(Hydroxymethyl)-2-(methoxymethyl)quinuclidin-3-one**
 产品别名: **PRIMA-1Met**

生物活性:					
Description	PRIMA-1Met restores wild-type conformation and function to mutant p53, and triggers apoptosis in tumor cells. PRIMA-1Met also targets the selenoprotein thioredoxin reductase 1 (TrxR1), a key regulator of cellular redox balance.				
IC ₅₀ & Target	p53 activator[1] TrxR1 inhibitor[1]				
In Vitro	PRIMA-1Met inhibits both recombinant TrxR1 in vitro and TrxR1 in cells. Cellular TrxR1 activity is inhibited by PRIMA-1Met irrespective of p53 status. PRIMA-1Met can directly affect cellular redox status via targeting of TrxR1. Several small molecules have been shown to restore wild-type activity to mutant p53, including CP-31398, PRIMA-1 and PRIMA-1MET, MIRA, STIMA, PhiKan-083 and NSC319726. PRIMA-1 and its methylated analog PRIMA-1Met promote correct folding of mutant p53, induce cell death by apoptosis, and inhibit tumor growth in mice. PRIMA-1Met has also been shown to reactivate mutant forms of the p63 and p73 proteins that share high structural homology with p53[1]. PRIMA-1MET is a powerful apoptosis-inducing agent. PRIMA-1MET can enhance apoptosis in mutant p53 carrying cells, compared to the p53 null parental cells. Most p53 mutants are in complex with Hsp70 proteins. PRIMA-1MET treatment increases Hsp70 expression and nucleolar translocation, in parallel with the induction of nucleolar accumulation of mutant p53. Several lines of evidence suggest that PRIMA-1MET can also act independently of the p53 status of the cell. It can radiosensitize prostate carcinoma cell lines with mutant or wild type p53 and p53-/- cells as well. Introduction of mutant p53 (p53ser249 or p53gln248) into p53-/- hepatocarcinoma cells increases sensitivity to PRIMA-1MET without the induction of p53 target genes. PRIMA-1MET regularly induces apoptosis in mutant p53 expressing cells[2].				
Solvent&Solubility	In Vitro: H ₂ O : 50 mg/mL (250.94 mM; Need ultrasonic)				
	Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
		1 mM	5.0188 mL	25.0941 mL	50.1882 mL
		5 mM	1.0038 mL	5.0188 mL	10.0376 mL
		10 mM	0.5019 mL	2.5094 mL	5.0188 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。					
References	[1]. Peng X, et al. APR-246/PRIMA-1MET inhibits thioredoxin reductase 1 and converts the enzyme to a dedicated NADPH oxidase. Cell Death Dis. 2013 Oct 24;4:e881. [2]. Stuber G, et al. PRIMA-1MET induces nucleolar translocation of Epstein-Barr virus-encoded EBNA-5 protein. Mol Cancer. 2009 Mar 26;8:23.				