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产品名称：KC7F2
产品别名：KC7F2

生物活性：

Description	KC7F2 is a potent hypoxia inducible factor-1 (HIF-1) pathway inhibitor with an IC50 of 20 μM in LN229-HRE-AP cells, and with potential as a cancer therapy agent[1].
IC_{50} & Target	IC50: 20 μM (HIF-1, LN229-HRE-AP cells)[1]
In Vitro	KC7F2 (15–25 μM; 0-72 hours) exhibits a clear dose-response cytotoxicity with an IC50 value of approximately 15–25 μM depending on the cell lines, and this effect is more severe under hypoxic conditions[1]. KC7F2 (0-80 μM; 6 hours) specifically reduces the protein levels of HIF-1α in a dose-dependent manner under hypoxic conditions; strongly decrease in HIF-1α levels at concentrations above 20 μM[1]. KC7F2 does not affect the rate of HIF-1α protein degradation[1]. KC7F2 inhibits HIF-1α protein synthesis but not its mRNA transcription[1]. KC7F2 represses the phosphorylation of eukaryotic initiation factor 4E binding protein 1 (4EBP1)[1].

Cell Cytotoxicity Assay[1]

Cell Line:	MCF7 cells, LNZ308 cells, A549 cells, U251MG cells, LN229 cells
Concentration:	15–25 μM
Incubation Time:	0-72 hours
Result:	With cytotoxicity more pronounced in tumor cell lines as compared to normal cells.

Cell Viability Assay[1]

Cell Line:	LN229 cells
Concentration:	6 hours
Incubation Time:	0 μM, 5 μM,7.5 μM,10 μM,15 μM,20 μM,30 μM,40 μM,60 μM,80 μM
Result:	Decreases HIF-1α protein levels in a dose-dependent manner.

Solvent&Solubility

In Vitro:

DMSO : ≥ 32 mg/mL (56.10 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.7532 mL	8.7661 mL	17.5322 mL
5 mM	0.3506 mL	1.7532 mL	3.5064 mL
10 mM	0.1753 mL	0.8766 mL	1.7532 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°C, 6 months; -20°C, 1 month。-80°C 储存时，请在 6 个月内使用，-20°C 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 (4.38 mM); Clear solution; Need ultrasonic 此方案可获得 2.5 mg/mL (4.38 mM)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% corn oil Solubility: ≥ 2.5 mg/mL (4.38 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (4.38 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。 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。
References	[1]. Narita T, et al. Identification of a novel small molecule HIF-1alpha translation inhibitor. Clin Cancer Res. 2009 Oct 1;15(19):6128-6136.