上海源叶生物科技有限公司
Shanghai yuanye Bio-Technology Co., Ltd
电话：021-61312973　　传真：021-55068248
网址：www.shyuanye.com
邮箱：shyysw@sina.com

产品名称：rac Perhexiline Maleate
产品别名：马来酸哌克昔林 ；Perhexiline maleate

生物活性：	
Description	Perhexiline maleate is a potent carnitine palmitoyltransferase 1 (CPT 1) inhibitor with IC_{50}s of 77 and 148 μM for rat heart and liver CPT 1, respectively.
IC_{50} & Target	IC50: 77 μM (Rat heart CPT 1), 148 μM (Rat liver CPT 1)[1]
In Vitro	At 24, 48 and 72 h of treatment with 0.01 and 1 μM of Perhexiline , NDM29 ncRNA expression level in SH-SY5Y cells is progressively increased, reaching a peak after 48 hours of treatment. Perhexiline treatment increases the susceptibility of NB cells to antiblastic treatments. Co-administration of Perhexiline maleate potentiates the efficacy of cisplatin to reduce the in vitro clonogenic potential of NB cells[2].
In Vivo	The co-administration of Perhexiline and cisplatin yields a clear enhancement of antitumor effects, resulting in a significantly improved progression-free survival as compared with mice treated with DMSO. Perhexiline favors NB cell transition to differentiated phenotype[2].
References	[1]. Kennedy JA, et al. Inhibition of carnitine palmitoyltransferase-1 in rat heart and liver by Perhexiline and amiodarone. Biochem Pharmacol. 1996 Jul 26;52(2):273-80. [2]. Vella S, et al. Perhexiline maleate enhances antitumor efficacy of cisplatin in neuroblastoma by inducing over-expression of NDM29 ncRNA. Sci Rep. 2015 Dec 17;5:18144.

实验参考：	
Cell Assay	The effect of antitumoral drugs on neuroblastoma cell survival is evaluated using the MTT assay. Approximately 24 hours after plating, cells are exposed to Perhexiline maleate (0.01 μM) for 48 hours at 37°C. Cytotoxicity is expressed as the percentage of cells surviving in relation to untreated cells[2].
Animal Administration	Mice: In protocol a, 21 mice are divided in 4 groups: control vehicle group: DMSO; cisplatin (3 mg/kg/dose) treated group; Perhexiline (1 mg/kg/dose) treated group and; Perhexiline (1 mg/kg/dose) and cisplatin (3 mg/kg/dose) treated group. In protocol b, 20 mice are divided in 4 groups: control vehicle group: DMSO; Perhexiline (3 mg/kg/dose) treated group; cisplatin (5 mg/kg/dose) treated group; Perhexiline (3 mg/kg/dose) and cisplatin (5 mg/kg/dose) treated group[2].
References	[1]. Kennedy JA, et al. Inhibition of carnitine palmitoyltransferase-1 in rat heart and liver by Perhexiline and amiodarone. Biochem Pharmacol. 1996 Jul 26;52(2):273-80. [2]. Vella S, et al. Perhexiline maleate enhances antitumor efficacy of cisplatin in neuroblastoma by inducing over-expression of NDM29 ncRNA. Sci Rep. 2015 Dec 17;5:18144.