上海源叶生物科技有限公司
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产品名称：SC-1；STAT3-IN-48
CAS 号：1313019-65-6
产品货号：S89007

生物活性：

Description	STAT3-IN-48 是一种 Sorafenib 的衍生物，可有效抑制 STAT3 的磷酸化。STAT3-IN-48 通过依赖 SHP-1 的 STAT3 失活诱导细胞凋亡 (apoptosis)，不抑制激酶活性，并具有抗癌作用。
IC50 & Target[1]	p-STAT3
In Vitro	STAT3-IN-48 (SC-1; 1-10 μM; 48 hours; breast cancer cells) treatment demonstrates dose-dependent suppression of cell viability in all tested breast cancer cells[1]. STAT3-IN-48 (SC-1; 1-10 μM; 36 hours; breast cancer cells) treatment induces potent apoptotic activity[1]. STAT3-IN-48 (SC-1; 1-10 μM; 36 hours; breast cancer cells) treatment shows downregulation of p-STAT3 and its downstream proteins cyclin D1 and survivin in a dose-dependent manner in breast cancer cell lines[1]。

Cell Viability Assay[1]

Cell Line:	HCC-1937, MDA-MB-231, MDA-MB-468, MDA-MB-453, SK-BR3 and MCF-7 cells
Concentration:	1μM, 2μM, 5μM, 7.5μM, 10μM
Incubation Time:	48 hours
Result:	Demonstrated dose-dependent suppression of cell viability in all tested breast cancer cells.

Apoptosis Analysis[1]

Cell Line:	HCC-1937, MDA-MB-231, MDA-MB-468, MDA-MB-453, SK-BR3 and MCF-7 cells
Concentration:	1μM, 2μM, 5μM, 7.5μM, 10μM
Incubation Time:	36 hours
Result:	Induced potent apoptotic activity.

Western Blot Analysis[1]

Cell Line:	HCC-1937, MDA-MB-231, MDA-MB-468, MDA-MB-453, SK-BR3 and MCF-7 cells
Concentration:	1μM, 2μM, 5μM, 7.5μM, 10μM
Incubation Time:	36 hours
Result:	Showed downregulation of p-STAT3 and its downstream proteins cyclin D1 and survivin in a dose-dependent manner in breast cancer cell lines.

In Vivo

STAT3-IN-48 (10 mg/kg; oral gavage; daily; for 28 days; female NCr athymic nude mice) treatment shows efficacious antitumor activity and p-STAT3 downregulation in MDA-MB-468 xenograft tumors[1].

Animal Model:	Female NCr athymic nude mice (4-6 weeks of age) injected with breast cancer cells [1]
Dosage:	10 mg/kg
Administration:	Oral gavage; daily; for 28 days
Result:	Showed efficacious antitumor activity and p-STAT3 downregulation in MDA-MB-468 xenograft tumors.

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Solvent&Solubility

细胞实验:

DMSO 中的溶解度 ：250 mg/mL (578.97 mM; 超声助溶; 吸湿的 DMSO 对产品的溶解度有显著影响，请使用新开封的 DMSO)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3159 mL	11.5794 mL	23.1589 mL
	5 mM	0.4632 mL	2.3159 mL	4.6318 mL
	10 mM	0.2316 mL	1.1579 mL	2.3159 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。

参考文献

[1]. Chun-Yu Liu, et al. Novel sorafenib analogues induce apoptosis through SHP-1 dependent STAT3 inactivation in human breast cancer cells. Breast Cancer Res. 2013;15(4):R63.

完整储备液配制表：

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。

可选溶剂	质量 / 溶剂体积 / 浓度	1 mg	5 mg	10 mg	25 mg
DMSO	**1 mM**	2.3159 mL	11.5794 mL	23.1589 mL	57.8972 mL
	5 mM	0.4632 mL	2.3159 mL	4.6318 mL	11.5794 mL
	10 mM	0.2316 mL	1.1579 mL	2.3159 mL	5.7897 mL
	15 mM	0.1544 mL	0.7720 mL	1.5439 mL	3.8598 mL
	20 mM	0.1158 mL	0.5790 mL	1.1579 mL	2.8949 mL
	25 mM	0.0926 mL	0.4632 mL	0.9264 mL	2.3159 mL
	30 mM	0.0772 mL	0.3860 mL	0.7720 mL	1.9299 mL
	40 mM	0.0579 mL	0.2895 mL	0.5790 mL	1.4474 mL
	50 mM	0.0463 mL	0.2316 mL	0.4632 mL	1.1579 mL
	60 mM	0.0386 mL	0.1930 mL	0.3860 mL	0.9650 mL
	80 mM	0.0289 mL	0.1447 mL	0.2895 mL	0.7237 mL
	100 mM	0.0232 mL	0.1158 mL	0.2316 mL	0.5790 mL