Product Data Sheet

Product Name: YB-0158
Cat. No.: GC63303

Chemical Properties

Cas. No.	1144043-83-3		
Formula	$C_{32}H_{32}N_7Na_2O_7P$	M.Wt	703.59
Solubility	DMSO : 100 mg/mL (142.13 mM; Need ultrasonic)|Water : < 0.1 mg/mL (ultrasonic;adjust pH to 1 with 1M HCl) (insoluble)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	YB-0158		

Protocol

Cell experiment [1]:

Cell lines	HT29 cells
Preparation Method	Cells were treated with DMSO or YB-0158 for 48 hours. As a positive control, each cell line was treated with 1 μM of staurosporine for 6 h.
Reaction Conditions	0.2, 0.5μM for 48 hours

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Applications	EdU incorporation confirmed that lower doses of YB-0158 were sufficient to significantly decrease proliferation in human CRC cells. When used at 0.5 μM, YB-0158 also significantly increased apoptosis in CRC cells as represented by activated Caspase-3/7 detection assays

Animal experiment [1]:

Animal models	C57BL/6 mice accepted subcutaneous injection of MC38 cells into the flanks
Preparation Method	Seven days post-injection, daily doses of YB-0158 (100mg/kg), or control saline (HBSS vehicle) were intraperitoneally injected in tumor-bearing animals for 14 days.
Dosage form	Intraperitoneal injection, 100mg/kg
Applications	No significant differences in primary tumor size were observed upon either YB-0158 in vivo treatments versus saline controls, residual secondary tumors from YB-0158-treated group were significantly smaller versus matched saline controls.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

References:

[1]: Angelique N. Masibag, Christopher J. Bergin, Joshua R. Haebe, AÏcha Zouggar, Muhammad S. Shah, Tamara Sandouka, Amanda Mendes da Silva, FranÇois M. Desrochers, Aube Fournier-Morin, Yannick D. Benoit.Pharmacological targeting of Sam68 functions in colorectal cancer stem cells. iScience, Volume 24, Issue 12, 17 December 2021, Pages 103442

Background

YB-0158 is known as Wnt pathway inhibitor 2. YB-0158 is a peptidomimetic structure with high predicted affinity for Sam68 [1].

YB-0158 elicits a cancer-selective response impeding main cancer stem cell hallmarks [1].

YB-0158 displayed enhanced selective toxicity in colorectal cancer models vs. normal intestinal epithelium progenitor cells. YB-0158 exert negative impact on cancer cell growth by inducing apoptosis and reducing proliferation. YB-0158 eradicated CSCs activity in vivo by a syngeneic mouse-to-mouse serial transplantation assay [2].

References:
[1]. Angelique N. Masibag, Christopher J. Bergin, Joshua R. Haebe, A?cha Zouggar, Muhammad S. Shah, Tamara Sandouka, Amanda Mendes da Silva, Fran?ois M. Desrochers, Aube Fournier-Morin, Yannick D. Benoit.Pharmacological targeting of Sam68 functions in colorectal cancer stem cells. iScience, Volume 24, Issue 12, 17 December 2021, Pages 103442
[2]. Masibag, Angelique Noelline. Characterization of a New Peptidomimetic Compound Modulating Sam68 Functions in Human Colon Cancer Stem Cells. Diss. Université d'Ottawa/University of Ottawa, 2021.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA