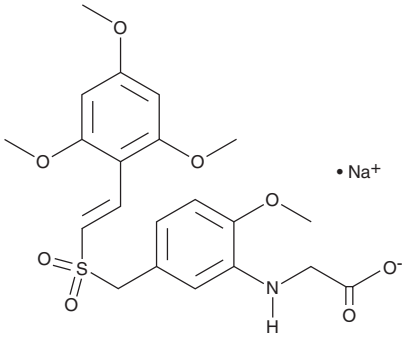
PRODUCT INFORMATION

ON-01910 (sodium salt)

Item No. 15553

CAS Registry No.:	1225497-78-8
Formal Name:	N-[2-methoxy-5-[[[2-(2,4,6-trimethoxyphenyl)ethenyl] sulfonyl]methyl]phenyl]-glycine, monosodium salt
Synonym:	Rigosertib
MF:	$C_{21}H_{25}NO_8S \bullet Na$
FW:	473.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 214, 241, 304 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

ON-01910 (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the ON-01910 (sodium salt) in the solvent of choice, which should be purged with an inert gas. ON-01910 (sodium salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of ON-01910 (sodium salt) in these solvents is approximately 30 mg/ml.

ON-01910 (sodium salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ON-01910 (sodium salt) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. ON-01910 (sodium salt) has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ON-01910 is a potent, non-ATP-competitive inhibitor of polo-like kinase 1 (Plk1; IC_{50} = 9 nM), a serine/threonine protein kinase involved in the regulation of cell cycling.[1] It induces apoptosis in a wide array of tumor cell lines (GI_{50} = 50-200 nM) and blocks the growth of multidrug resistant cancer cell lines.[1-4] ON-01910 is active *in vivo* when administered intraperitoneally and synergizes with chemotherapeutic agents, preventing tumor growth or abolishing tumors in human xenograft nude mouse models.[1]

References

1. Gumireddy, K., Reddy, M.V.R., Cosenza, S.C., *et al*. ON01910, a non-ATP-competitive small molecule inhibitor of Plk1, is a potent anticancer agent. *Cancer Cell* **7(3)**, 275-286 (2005).
2. Chapman, C.M., Sun, X., Roschewski, M., *et al*. ON 01910.Na is selectively cytotoxic for chronic lymphocytic leukemia cells through a dual mechanism of action involving PI3K/AKT inhibition and induction of oxidative stress. *Clin. Cancer Res*. **18(7)**, 1979-1991 (2012).
3. Oussenko, I.A., Holland, J.F., Reddy, E.P., *et al*. Effect of ON 01910.Na, an anticancer mitotic inhibitor, on cell-cycle progression correlates with RanGAP1 hyperphosphorylation. *Cancer Res*. **71(14)**, 4968-4976 (2011).
4. Chang, K.-C., Chang, W.-C., Chang, Y., *et al*. Ran GTPase-activating protein 1 is a therapeutic target in diffuse large B-cell lymphoma. *PLoS One* **8(11)**, 1-12 (2013).

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