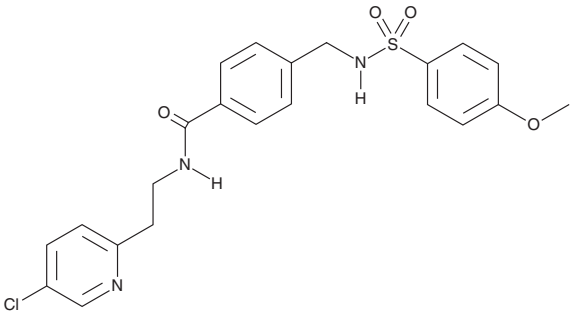
PRODUCT INFORMATION

YU238259

Item No. 25452

CAS Registry No.:	1943733-16-1
Formal Name:	N-[2-(5-chloro-2-pyridinyl)ethyl]-4-[[[(4-methoxyphenyl)sulfonyl]amino]methyl]-benzamide
MF:	$C_{22}H_{22}ClN_3O_4S$
FW:	459.9
Purity:	≥95%
UV/Vis.:	λ_{max}: 239 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

YU238259 is supplied as a crystalline solid. A stock solution may be made by dissolving the YU238259 in the solvent of choice, which should be purged with an inert gas. YU238259 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of YU238259 in these solvents is approximately 30 mg/ml.

YU238259 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, YU238259 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. YU238259 has a solubility of approximately 0.1 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

YU238259 is an inhibitor of homology-dependent DNA repair (HDR) that is lethal to *BRCA2*$^{-/-}$ but not *BRCA2*$^{+/+}$ PEO1/4 cells (LD_{50}s = 8.7 and >100 µM, respectively).[1] YU238259 selectively inhibits HDR over non-homologous end joining (NHEJ), decreasing the number of U20S cells with ionizing radiation-induced BRCA1 foci but not 53BP1 or pDNA-PK foci. It also increases the number of ionizing radiation-induced double strand breaks (DSBs) in DLD-1 cells. YU238259 (1-20 µM) is cytotoxic to *BRCA2*$^{-/-}$ DLD-1, *ATM*$^{-/-}$ GM05849, and *PTEN*$^{-/-}$ U251 cells but has no effect on wild-type cells. *In vivo*, YU238259 (3 mg/kg) delays tumor growth and increases survival in a *BRCA2*$^{-/-}$, but not a *BRCA*$^{+/+}$, DLD-1 mouse xenograft model.

Reference

1. Stachelek, G.C., Peterson-Roth, E., Liu, Y., *et al.* YU238259 is a novel inhibitor of homology-dependent DNA repair that exhibits synthetic lethality and radiosensitization in repair-deficient tumors. *Mol. Cancer Res.* **13(10)**, 1389-1397 (2015).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM