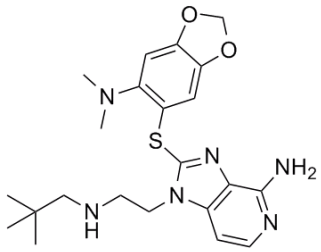
Data Sheet

Product Name:	Debio 0932
Cat. No.:	HY-13469
CAS No.:	1061318-81-7
Molecular Formula:	$C_{22}H_{30}N_6O_2S$
Molecular Weight:	442.58
Target:	HSP
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease
Solubility:	DMSO: ≥ 33 mg/mL



BIOLOGICAL ACTIVITY:

Debio 0932 (CUDC–305) is a novel heat shock protein 90 (HSP90) inhibitor trong affinity for HSP90 alpha/beta, high oral bioavailability and potent anti–proliferative activity against a broad range of cancer cell lines (with a mean IC50 of 220 nmol/L) [1].
target: HSP90 [1]
IC50: 220 nmol/L [1]
in vitro: H1993 and H1975 NSCLC cells were incubated with 1 μmol/L CUDC–305 for 7 hours and then cultured in compound–free medium for an additional 0, 17, or 24 hours, respectively, before being analyzed by Western blot [1]
in vivo: CUDC–305 was delivered through oral gavage on an every–other–day (once every two days) dosing schedule at various doses up to 160 mg/kg–its maximum tolerated dose in nude mice. In survival studies in Balb/C nude mice, the highest dose was reduced to 120 mg/kg as a result of the compromised animal condition due to lung and brain tumor implantation surgeries. [1]

PROTOCOL (Extracted from published papers and Only for reference)

cell assay [1] Various NSCLC cell lines of human origin were purchased from the American Type Culture Collection and plated at 5,000 to 10,000 per well in 96–well plates with the culture medium as suggested by the provider. Cancer cells in culture were then treated with CUDC–305 at 1 μmol/L for varying periods and harvested in a sample loading buffer Cell lysates were subjected to Western blot analysis as described. animal administration [1] [2] : mice were dosed orally with CUDC–305 when s.c. implanted tumors reached a volume of 100 to 200 mm3, or orthotopically implanted lung tumors were established about 4 wk after tumor implantation. Tumors were then collected at various time points following treatment. [1] CUDC–305 was delivered orally at three dosage levels (40, 80, or 160 mg/kg, orally, q2d) when tumors reached an average volume of 122 mm3. During treatment period, tumor volume and body weight were measured twice weekly to determine antitumor activity and toxicity of compound. [2]

References:

[1]. Bao R, Lai CJ et al. Targeting heat shock protein 90 with CUDC–305 overcomes erlotinib resistance in non–small cell lung cancer. Mol Cancer Ther, 2009 Dec;8(12):3296–306.
[2]. Rudi Bao, Cheng–Jung Lai et al. CUDC–305, a Novel Synthetic HSP90 Inhibitor with Unique Pharmacologic Properties for Cancer Therapy. Clin Cancer Res, 2009 Jun 15;15(12):4046–57.

Caution: Product has not been fully validated for medical applications. For research use only.

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