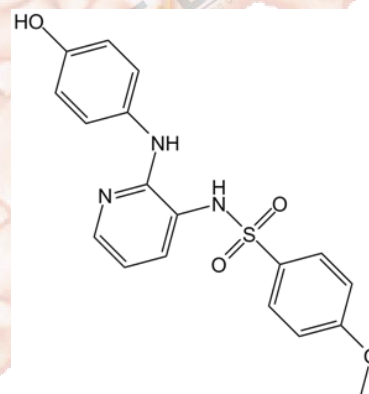


Product Data Sheet

ABT-751 (E7010)

Cat. No.:	A1493
CAS No.:	141430-65-1
Formula:	C ₁₈ H ₁₇ N ₃ O ₄ S
M.Wt:	371.41
Synonyms:	
Target:	Cell Cycle/Checkpoint
Pathway:	Microtubule/Tubulin
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; ≥18.55 mg/mL in DMSO; ≥25.53 mg/mL in EtOH with ultrasonic

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	2.6924 mL	13.4622 mL	26.9244 mL
	5 mM	0.5385 mL	2.6924 mL	5.3849 mL
	10 mM	0.2692 mL	1.3462 mL	2.6924 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

Inhibitor of microtubule polymerization, antimitotic

IC₅₀ & Target

Cell Viability Assay

In Vitro

Cell Line:	RD, TC-71, LD, HTB-186, HOS, SK-N-AS, SK-N-DZ and KCNR pediatric solid tumor cell lines
Preparation method:	The solubility of this compound in DMSO is > 18.6 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

	Reacting conditions:	0.1 nM-100 μ M
	Applications:	ABT-751 showed the selective cytotoxicity with IC ₅₀ of 0.6–2.6 μ M in neuroblastoma and 0.7–4.6 μ M in other solid tumor cell lines. ABT-751 exhibited a selective effect on dynamic microtubules and spared stable microtubules, accounting for the persistence of acetylated and deetyrosinated α -tubulin positive polymerized tubules at the IC ₉₀ concentration of ABT-751.
In Vivo	Animal experiment	
	Animal models:	Nude mice bearing Calu-6 non-small cell lung carcinoma (NSCLC), HT-29 colon carcinoma, and HCT-116 colon carcinoma xenografts
	Dosage form:	Orally once a day at 75 or 100 mg/kg/day on a 5-days-on, 5-days-off schedule for two cycles
	Applications:	In the Calu-6 xenograft model, ABT-751 as a single agent at 100 and 75 mg/kg/day showed significant antitumor activity, while in combination with cisplatin, ABT-751 dose-dependently enhanced growth delay. In the HT-29 colon xenograft model, ABT-751 showed significant antitumor activity as a single agent and produced a dose-dependent enhancement in growth delay in combination with 5-FU.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Jost M, Chen Y, et al. "Combined CRISPRi/a-Based Chemical Genetic Screens Reveal that Rigosertib Is a Microtubule-Destabilizing Agent." *Mol Cell*. 2017 Oct 5;68(1):210-223.e6. PMID:28985505

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References

[1]. Meany H J, Sackett D L, Maris J M, et al. Clinical outcome in children with recurrent neuroblastoma treated with ABT - 751 and effect of ABT - 751 on proliferation of neuroblastoma cell lines and on tubulin polymerization in vitro[J]. *Pediatric blood & cancer*, 2010, 54(1): 47-54.

[2]. Jorgensen T J, Tian H, Joseph I B J K, et al. Chemosensitization and radiosensitization of human lung and colon cancers by antimitotic agent, ABT-751, in athymic murine xenograft models of subcutaneous tumor growth[J]. *Cancer chemotherapy and pharmacology*, 2007, 59(6): 725-732.

Caution

FOR RESEARCH PURPOSES ONLY.



NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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