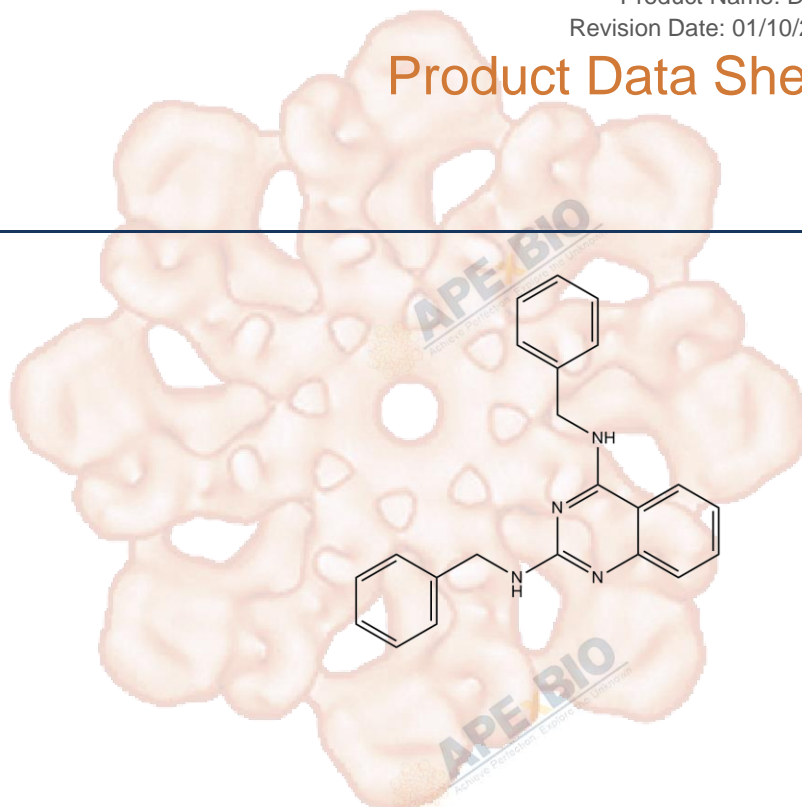


Product Data Sheet

DBeQ

Cat. No.:	A8629
CAS No.:	177355-84-9
Formula:	C ₂₂ H ₂₀ N ₄
M.Wt:	340.42
Synonyms:	
Target:	Ubiquitination/ Proteasome
Pathway:	p97
Storage:	Store at -20°C



Solvent & Solubility

≥16 mg/mL in DMSO; ≥2.24 mg/mL in H₂O with gentle warming; ≥7.71 mg/mL in EtOH with ultrasonic

In Vitro

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1mg	5mg	10mg
	1 mM		2.9375 mL	14.6877 mL	29.3755 mL
	5 mM		0.5875 mL	2.9375 mL	5.8751 mL
	10 mM		0.2938 mL	1.4688 mL	2.9375 mL

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

Biological Activity

Shortsummary

P97 ATPase inhibitor

IC₅₀ & Target

1.5 μM (p97)

In Vitro

Cell Viability Assay

Cell Line: HeLa cells, HEK293 cells

Preparation method: The solubility of this compound in DMSO is > 16.0 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: 5 h

	Applications:	In HeLa cells, DBeQ blocked UbG76V-GFP, ODD-Luc and Luc-ODC degradation with IC50 of 2.6 μ M, 56 μ M and 45 μ M. DBeQ (10 μ M) potently blocked degradation of TCR α -GFP in HEK293 cells. DBeQ dose-dependently induced CHOP within 3 hours. DBeQ (15 μ M) induced a strong accumulation of LC3-II in the nucleus plus membrane-enriched and cytosolic fractions in HeLa cells. DBeQ functioned by blocking autophagic degradation of LC3-II instead of inducing autophagy in HeLa cells. DBeQ (10 μ M) rapidly promoted activation of the “executioner” caspases-3 and -7 in HeLa cells. DBeQ was five-fold more active against multiple myeloma (RPMI8226) cells than normal human fetal lung fibroblasts (MRC5), with HeLa and Hek293 cells showing intermediate sensitivities.
In Vivo	Animal experiment	
	Applications:	
	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

See more customer validations on www.apexbt.com.

References

[1]. Chou T F, Brown S J, Minond D, et al. Reversible inhibitor of p97, DBeQ, impairs both ubiquitin-dependent and autophagic protein clearance pathways[J]. Proceedings of the National Academy of Sciences, 2011, 108(12): 4834-4839.

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 APEX BIO 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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