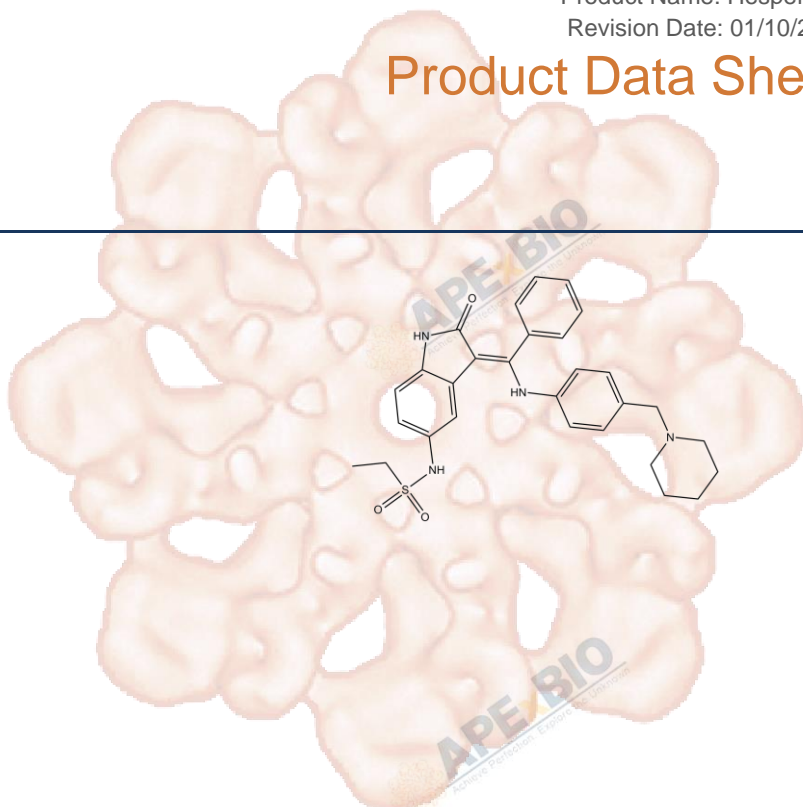


Product Data Sheet

Hesperadin

Cat. No.:	A4118
CAS No.:	422513-13-1
Formula:	C ₂₉ H ₃₂ N ₄ O ₃ S
M.Wt:	516.65
Synonyms:	
Target:	Chromatin/Epigenetics
Pathway:	Aurora Kinase
Storage:	Store at -20°C



Solvent & Solubility

≥25.85 mg/mL in DMSO; insoluble in H₂O; ≥2.31 mg/mL in EtOH with gentle warming and ultrasonic

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	1.9355 mL	9.6777 mL	19.3555 mL
	5 mM	0.3871 mL	1.9355 mL	3.8711 mL
	10 mM	0.1936 mL	0.9678 mL	1.9355 mL

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

Biological Activity

Shortsummary

Aurora B kinase inhibitor

IC₅₀ & Target

250 nM (Aurora B (human)), 40 nM (TbAUK1)

In Vitro

Cell Viability Assay

Cell Line:	HeLa cells
Preparation method:	The solubility of this compound in DMSO is >25.9mg/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:	50 nM; 2 h

	Applications:	In HeLa cells, Hesperadin stopped cell proliferating but did not stop growing, and over a 6-d period, the cell diameter increased more than sevenfold (from 20 to 150 μm). The cells acquired enlarged lobed nuclei correlated with polyploidization, reaching a 32C DNA content on day 3. Hesperadin caused defects in mitosis and cytokinesis.
In Vivo	Animal experiment	
	Applications:	

Product Citations

1. Kaisari S, Shomer P, et al. "Role of Polo-like kinase 1 in the regulation of the action of p31(comet) in the disassembly of mitotic checkpoint complexes." Proc Natl Acad Sci U S A. 2019 Jun 11;116(24):11725-11730.PMID:31118282
2. Manuel Saldivia, Srinivasa P.S. Rao, et al. "Targeting the trypanosome kinetochore with CLK1 protein kinase inhibitors." bioRxiv. 2019 April 24.

See more customer validations on www.apexbt.com.

References

- [1]Jetton N1, Rothberg KG, Hubbard JG, Wise J, Li Y, Ball HL, Ruben L. The cell cycle as a therapeutic target against Trypanosoma brucei: Hesperadin inhibits Aurora kinase-1 and blocks mitotic progression in bloodstream forms. Mol Microbiol. 2009 Apr;72(2):442-58. doi: 10.1111/j.1365-2958.2009.06657.x. Epub 2009 Mar 6.
- [2]Hauf S1, Cole RW, LaTerra S, Zimmer C, Schnapp G, Walter R, Heckel A, van Meel J, Rieder CL, Peters JM. The small molecule Hesperadin reveals a role for Aurora B in correcting kinetochore-microtubule attachment and in maintaining the spindle assembly checkpoint. J Cell Biol. 2003 Apr 28;161(2):281-94. Epub 2003 Apr 21.

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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