

Supplementary Materials

Discovery of hordenine as a potential inhibitor of pyruvate dehydrogenase kinase 3: Implication in lung cancer therapy

Saleha Anwar¹, Taj Mohammad¹, Anas Shamsi¹, Aarfa Queen², Shahnaz Parveen^{3,4}, Suaib Luqman³, Gulam Mustafa Hasan⁵, Khalid A. Alamry⁶, Naved Azum⁶, Abdullah M. Asiri^{6,7}, Md. Imtaiyaz Hassan^{1,*}

¹ Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, Jamia Nagar, New Delhi 110025, INDIA.

² Department of Chemistry, Jamia Millia Islamia, Jamia Nagar, New Delhi 110025, INDIA.

³ Molecular Bioprospection Department, CSIR-Central Institute of Medicinal and Aromatic Plants, Lucknow-226015, Uttar Pradesh, India.

⁴ Academy of Scientific and Innovative Research (AcSIR), Ghaziabad-201002, Uttar Pradesh, India.

⁵ Department of Biochemistry, College of Medicine, Prince Sattam Bin Abdulaziz University, P.O. Box 173, Al-Kharj – 11942, Kingdom of Saudi Arabia.

⁶ Chemistry Department, Faculty of Science, King Abdulaziz University, P.O. Box 80203, Jeddah 21589, Saudi Arabia.

⁷ Center of Excellence for Advanced Materials Research (CEAMR), King Abdulaziz University, P.O. Box 80203, Jeddah 21589, Saudi Arabia.

**To whom all correspondence should be addressed,*

Md. Imtaiyaz Hassan, Ph.D., FRSB, FRSC.

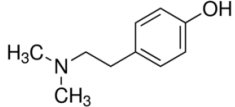
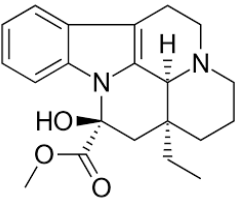
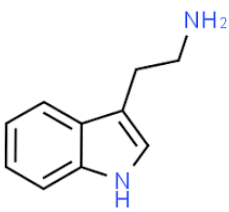
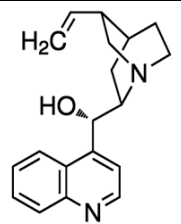
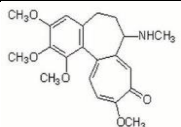
Centre for Interdisciplinary Research in Basic Sciences

Jamia Millia Islamia, Jamia Nagar

New Delhi 110025, INDIA

E-mail: mihassan@jmi.ac.in

Table S1. Binding parameters of screened natural compounds with PDK3 obtained from molecular docking and fluorescence binding studies.

S.No.	NAME OF THE COMPOUND/LIGAND	CHEMICAL STRUCTURE	PUBCHEM cID	$\Delta G^\#$ (kcal/mol)	Binding constant* (K) M ⁻¹
1	Hordenine		68313	-7.1	0.5 X10 ⁶
2	Vincamine		15376	-6.9	NA
3	Tryptamine		1150	-7.1	NA
4	Cinchonine		90454	-8.1	NA
5	Colcemid		2832	-7.0	2.02 X 10 ³

[#]Binding affinity of the selected compounds with PDK3 predicted through Molecular docking. *Binding constant calculated from fluorescence studies. Binding constant values could not be predicted in some cases and mentioned as not applicable (NA).