Cloning and comparative modeling identifies a highly stress tolerant Cu/Zn cytosolic Super Oxide Dismutase 2 from a drought tolerant maize inbred line

Anuradha Gautam¹, Fatima Nazish Khan^{2,3}, Surabhi Priya^{1,} Krishan Kumar¹, Shivani Sharda⁴, Tanushri Kaul⁵, Ishwar Singh¹, Sapna Langyan^{6*}, Pranjal Yadava^{1,2*}

¹ ICAR- Indian Institute of Maize Research, Pusa Campus, New Delhi, 110012, India

² Division of Plant Physiology, Indian Agricultural Research Institute, Pusa, New Delhi, 110012, India

³ Department of Biotechnology, Jamia Millia Islamia, Jamia Nagar, New Delhi, 110025, India

⁴ Amity Institute of Biotechnology. Amity University, Sector-125, Noida, UP, 201313, India

⁵ International Centre for Genetic Engineering and Biotechnology, Aruna Asaf Ali Marg, New Delhi, 110067, India

⁶ Division of Germplasm Evaluation, ICAR- National Bureau of Plant Genetic Resources, Pusa Campus, New Delhi, India

SUPPLEMENTARY FIGURES



Figure S1: Conserved domains in the cloned ZmSOD2 protein from drought tolerant inbred HKI 335 (ALF00121.1).

1st line -> residue numeration 2nd line -> query amino acid sequence 3rd line -> trans-membrane domain prediction (T-TM region, N-soluble part)	
>	0 MVKAVAVLAGTDVKGTIFFSQEGDGPTTVTGSISGLKPGLHGFHVHALGDTTNGCMSTGP NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
>	61 HFNPVGKEHGAPEDEDRHAGDLGNVTAGEDGVVNVNITDSQIPLAGPHSIIGRAVVVHAD NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
>	121 151 PDDLGKGGHELSKSTGNAGGRVACGIIGLQG NNNNNNNNNNNNNNNNNNNNNNNNNNNN
E	ND_SECTION

Figure S2: Trans-membrane domain prediction showing that protein is soluble and no trans-membrane region is found.