

Analysis of Phosphatase Activity in a Droplet-Based Microfluidic Chip

Bala Murali Krishna Vasamsetti ^{1,2}, Yeon-Jun Kim ¹, Jung Hoon Kang ¹ and Jae-Won Choi ^{1,3,*}

¹ Department of Biomedical Science, Cheongju University, Cheongju 28160, Republic of Korea

² Toxicity and Risk Assessment Division, Department of Agro-Food Safety and Crop Protection, National Institute of Agricultural Sciences, Rural Development Administration, Wanju-gun 55365, Republic of Korea

³ Department of Bioindustrial Engineering, Cheongju University, Cheongju 28503, Republic of Korea

* Correspondence: jwchoi0211@gmail.com; Tel.: +82-43-229-8528

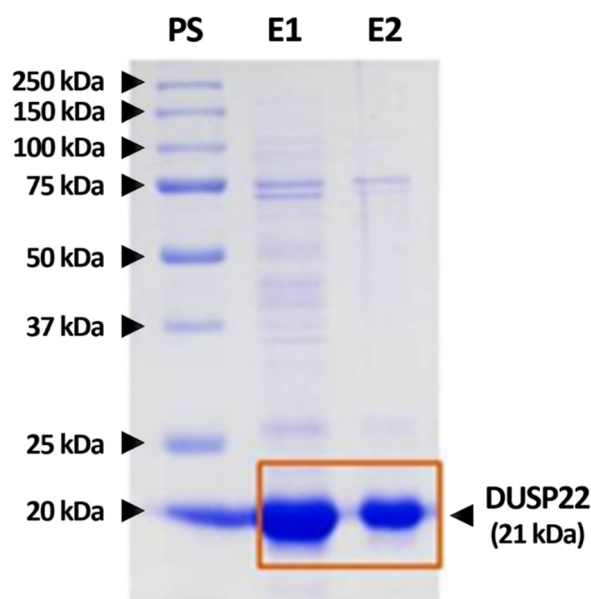


Figure S1. Polyacrylamide gel image confirming recombinant DUSP22 proteins. The recombinant DUSP22 proteins (6X His-tagged form) from a bacterial lysate were purified utilizing immobilized metal chromatography (IMAC) using Ni-NTA resins. Five microliter samples from the first two Ni-NTA resin packed column eluents were run on a 12% polyacrylamide gel and stained with Coomassie Brilliant Blue R-250. Lane 1: All Blue Prestained Protein Standard (PS) from Bio-Rad, Lane 2: DUSP22 elute 1 (E1), and Lane 3: DUSP22 elute 2 (E2).

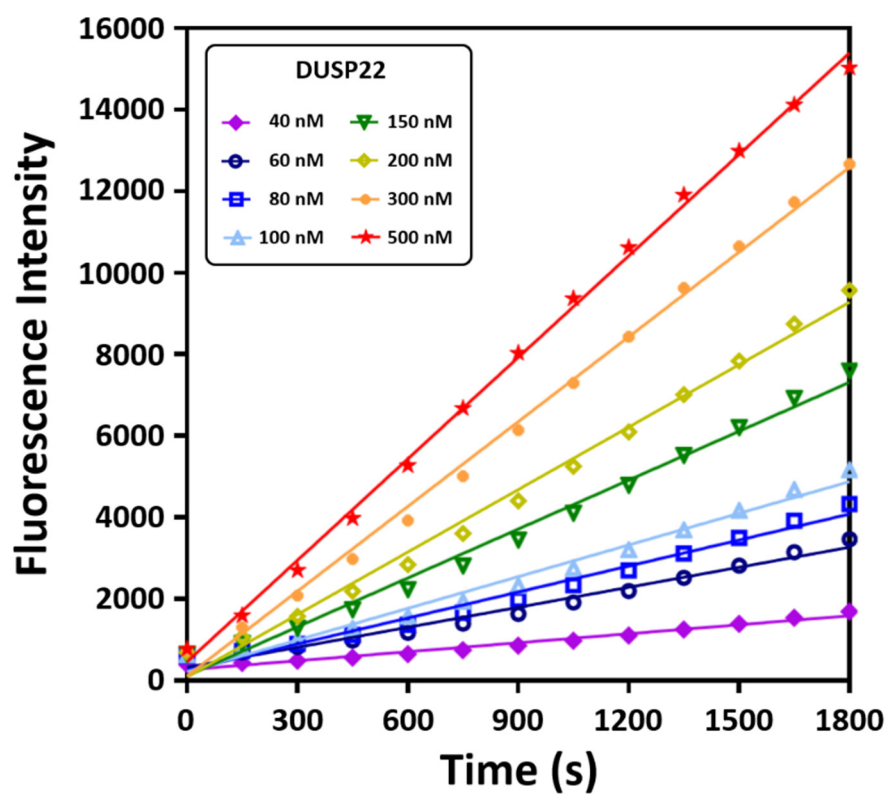


Figure S2. Fluorescence intensities at designated concentrations of DUSP22 in a microwell plate. The concentrations of DUSP22 were varied from 40 nM to 500 nM and the concentration of 3-OMFP was fixed at 10 μ M. All samples were excited at 488 nm and fluorescence emission from the samples was monitored at 515 nm in a black 96-well plate.