

## Analysis of Phosphatase Activity in a Droplet-Based Microfluidic Chip

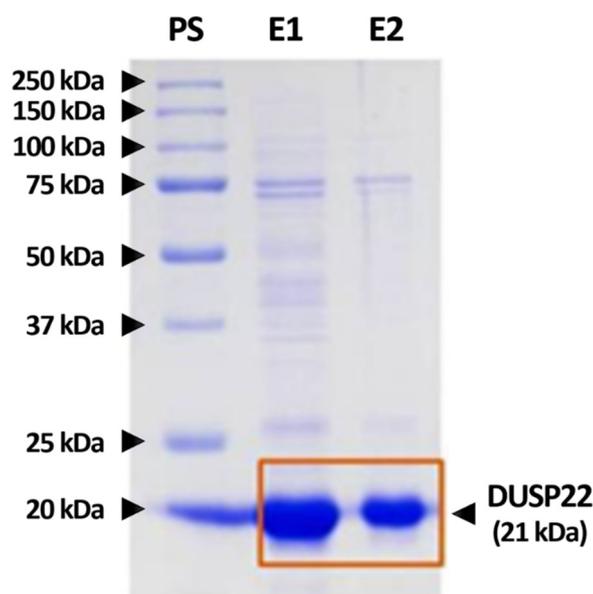
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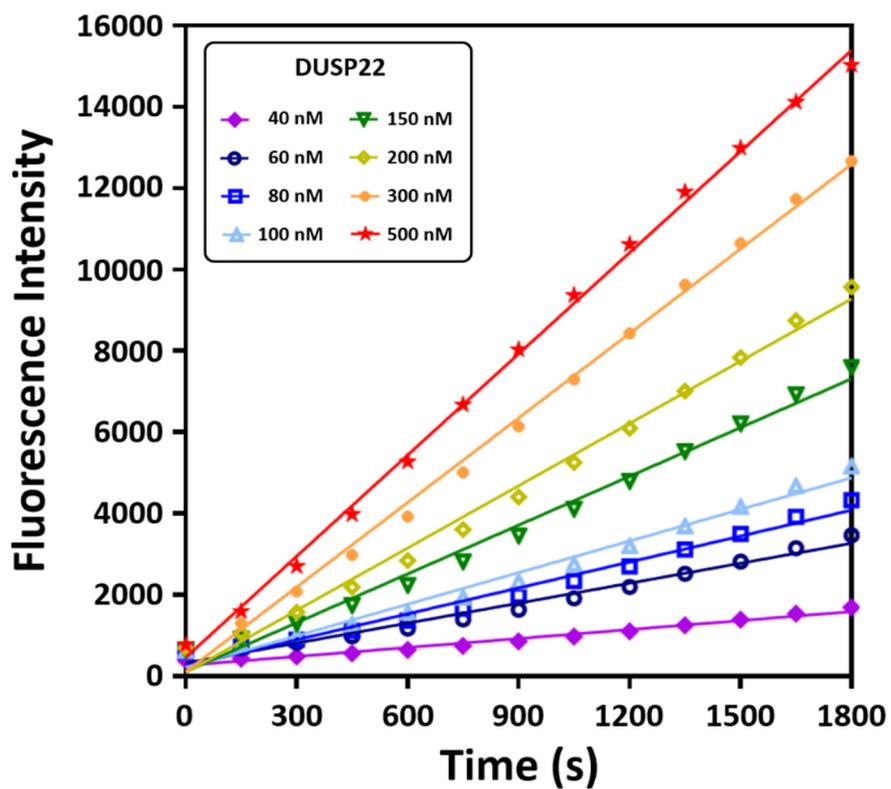
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**Figure S1.** Polyacrylamide gel image confirming recombinant DUSP22 proteins. The recombinant DUSP22 proteins (6X His-tagged form) from a bacterial lysate were purified utilizing immobilized metal chromatography (IMAC) using Ni-NTA resins. Five microliter 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  $\mu$ 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.