## **Description of Additional Supplementary Files**

File name: Supplementary Data 1

Description: List of upregulated splicing factors in WAS KO-iMPs from DIA-MS data.

File name: Supplementary Data 2

Description: List of AASE in genes associated with immunity.

File name: Supplementary Data 3

Description: List of WASP partners identified by MudPIT.

File name: Supplementary Data 4

Description: List of genes identified by RIPseq.

File name: Supplementary Data 5 Description: List of oligonucleotides.

File name: Supplementary Data 6 Description: List of antibodies.

File name: Supplementary Data 7

Description: Gating strategy for FACS plots.

File name: Supplementary Movie 1

Description: A time-lapse movie of optoWASP activated by blue light.

File name: Supplementary Movie 2

Description: A time-lapse movie of N-terminal IDR of WASP fused with Cry2 optogenetic tool

activated by blue light.

File name: Supplementary Movie 3

Description: A time-lapse movie of C-terminal IDR of WASP fused with Cry2 optogenetic tool

activated by blue light.

File name: Supplementary Movie 4

Description: A time-lapse movie of optoWASP droplet fusion.