

Description of Additional Supplementary Files

Supplementary Data 1. A summary of gRNA counts from genome-wide CRISPR screens. Two screens were done with MDA-MB-231 control cells co-cultured with primary human lymphocytes+/-nivolumab. One screen was done with either control or NEDD8 KO MDA-MB-231 cells.

Supplementary Data 2. This file contains the processed results of label-free proteomics analysis with either MDA-MB-231 control or NEDD8 KO cells. Each cell line contains 4 replicates.

Supplementary Data 3. The results are from the nanostring analysis of single cells isolated from control or *Nedd8* KO EO771 tumors treated with either an anti-PD1 antibody or the isotype control.