Supplementary Information:

Targeting PD1-PDL1 Immune Checkpoint in Plasmacytoid Dendritic Cells Interactions with T Cells, Natural Killer Cells, and Multiple Myeloma Cells

Short title: Targeting immune checkpoint PDL1 in myeloma

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Word Counts: 1500; Total number of Figures: 2; Supplementary Figures 2; and,

References: 15

Scientific Category: Myeloma

Key Words

Myeloma, Immunotherapy, Plasmacytoid Dendritic Cells, PDL-1, or PD-1

Supplementary Figure 1 **Effect of anti-PDL1 Ab on pDC-induced growth of MM cell lines** MM patient pDCs and MM.1S, MM.1R or RPMI-8226 cells were cultured either alone or together in the presence of isotype-matched control Ab or anti-PDL1 Ab (5 μg/ml) for 72h, and then analyzed for growth. Data are presented as fold change in MM cell growth in the presence versus absence of pDCs (mean ± SD; $p< 0.05$, n=3). CpG-ODN-treated (1 μg/ml) co-cultures of pDCs and MM cells served as a positive control for MM cell growth inhibition (mean ± SD; $p < 0.005$). Co-cultures of pDCs and MM cells were performed at 1:5 (pDC:MM) ratio. Growth assays were performed using 1 X 10^4 pDCs and 5 X 10^4 MM cells in 200 μl media in 96 well plates. Error bars indicate SD.

Supplementary Figure 2 **Anti-PDL1 Ab induces MM-specific CD4+ CTLs** Freshly isolated CD4+ T cells from MM patient BM (n = 10) were co-cultured with autologous pDCs at 1:10 (pDC:T) ratio in the presence of isotype-matched control Ab or anti-PDL1 Ab (5 μg/ml) for 5 days; then GFP+ MM.1S cells were added for another 3 days (E:T ratio 20:1 for CD4+T:GFP+ MM.1S), followed by quantification of viable GFP+ MM.1S cells by FACS (*lower panel; bar graph*) (mean ± SD; $p < 0.03$). The loss of viable GFP signal is shown in a representative histogram (*upper panel*), indicating MM cell lysis by CD4+ CTLs.