Supplemental Figure Legends:

Supplemental Figure 1: Effect of type one interferon isoforms on myeloma cell viability. (A) Effect of IFN-β on NCI-H929 (left panel), RPMI 8226 (middle panel) and U266 (right panel) cell viability. Cells were treated with increasing concentrations of IFN-β for 24 or 72 hrs. Viability and data analysis were performed as described in figure 1. Each point on the graph is mean +/- SEM of 6 replicates. (B) IFN-α1b had a similar effect on myeloma cell viability as IFN-α2b. NCI-H929, RPMI 8226 and U266 cells were treated with increasing concentrations of IFN-α1b (left panel) or with IFN-α2b (right panel) for 96 hrs and cell viability was measured. Each point in the graph is mean +/- SEM of 6 replicates. (C) IFN-α2b antagonized anti-viability effects of Apo2L/TRAIL on myeloma cell lines at 24 hr but not at 72 hr. Myeloma cell lines were subjected to IFN-α2b, Apo2L/TRAIL or combination treatment as in figure 1A. Viability of cells was measured at 24 or at 72 hr.

Supplemental Figure 2: Effect of IFN-α2b, Apo2L/TRAIL or their combinations on Apo2L/TRAIL and Apo2L/TRAIL receptors expression. (A) 5X10⁵ RPMI 8226 cells were left untreated or treated with IFN-α2b (250 IU/ml), Apo2L/TRAIL (25 ng/ml) or their combinations for 18 hrs. Relative expression of DR4, DR5, DcR1 and Apo2L/TRAIL mRNA were measured by real time RT-PCR with specific Taqman probes (mean +/- SEM of 3 independent real-time RT-PCR experiments). (B) 2X10⁶ RPMI 8226 cells subjected to treatments as in “A” and 40 μg of WCE was used for immunoblotting to assess Apo2L/TRAIL receptor protein expression.

Supplemental Figure 3: Effects of IFN-α2b on the kinetics of Apo2L/TRAIL induced caspase 8 and caspase 3 activity. Caspase activity in untreated, IFN-α2b (250 IU/ml), Apo2L/TRAIL (25 ng/ml) or IFN-α2b plus Apo2L/TRAIL treated cells for 1, 3 or 6 hr was determined. IFN-α2b cotreatment had only a marginal inhibitory effect on Apo2L/TRAIL induced caspase 8 (left panel)
but inhibited the activation of caspase 3 at 3 and 6 hr after treatment (right panel). Results are mean+/-SEM of 2 independent experiments done in triplicate, and each point on the graph represents fold induction of caspases in treated samples compared to control.

**Supplemental Figure 4: Constitutive Expression of G1P3 in RPMI 8226 cells.** (A) Relative expression of G1P3 in HAT and HAT-G1P3 clones as determined by real-time RT-PCR with a G1P3 specific Taqman probe. Each bar represents mean +/- SD of two independent experiments. (B) Relative expression of Apo2L/TRAIL or its receptors in HAT or HAT-G1P3 clones with respect to HAT clone #1. Each bar represents mean +/- SD of 3 independent real-time RT-PCR experiments.