**Supplementary Table Legends:**

**Supplementary Table 1.** Known Profile of EMP2 Upregulation in Breast Cancer. Summary of Affymetrix analysis of EMP2 mRNA expression in breast cancer.

**Supplementary Table 2.** Clinical Data for Invasive Breast Cancer Patients used in the TMA.

**Supplementary Table 3.** Expression levels of EMP2 in triple negative breast cancer cases in 23 patients. Samples were stained using EMP2 antisera and scored as described in the Methods and Materials.

**Supplementary Table 4.** Evaluation of EMP2 IgG1 toxicity compared to control IgG following 7 weeks of treatment delivered systemically IP. C57B/6 mice were injected at 10mg/kg weekly.

**Supplementary Table 5.** Evaluation of EMP2 IgG1 toxicity compared to control IgG following systemic IP treatment. C57B/6 mice were injected with sequentially increasing concentrations of antibody. Mice were injected with 10mg/kg twice a week, 20mg/kg twice the second week, and 40 mg/kg twice on the third week.