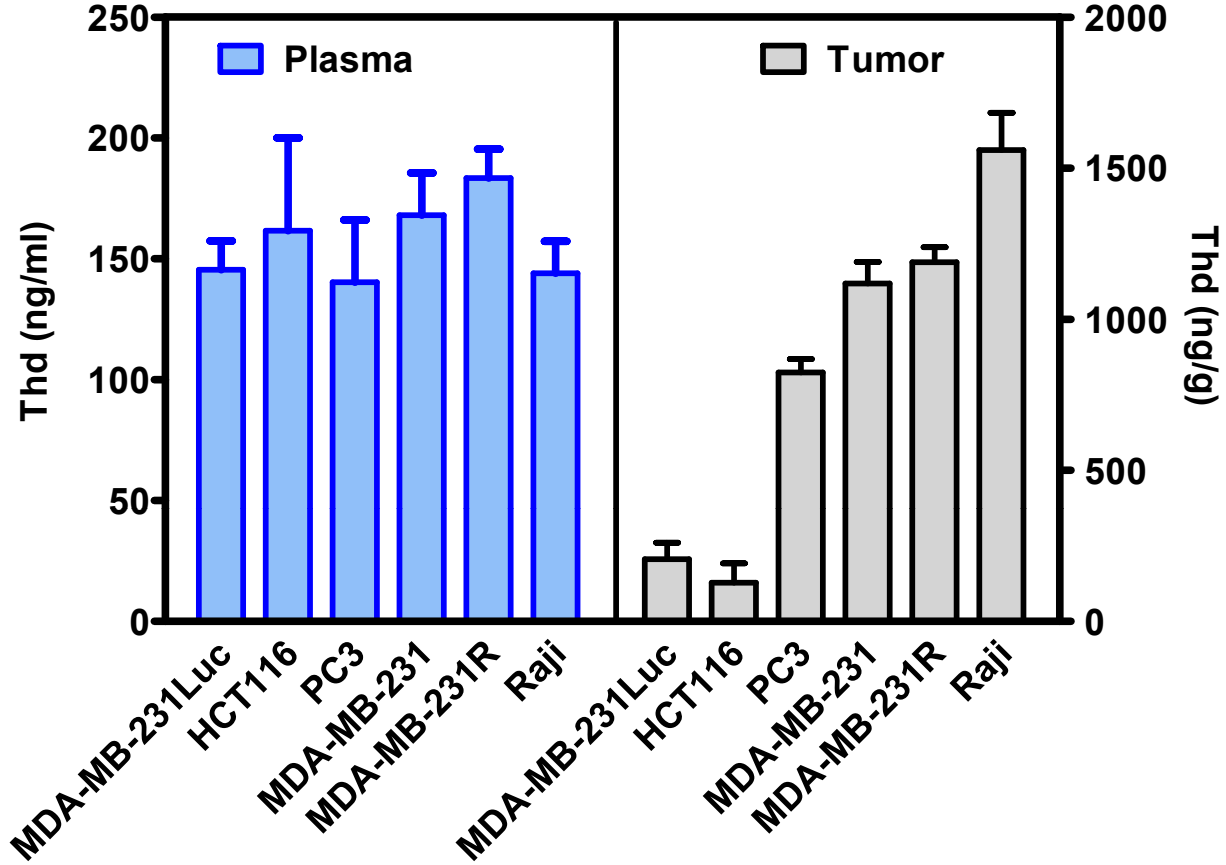
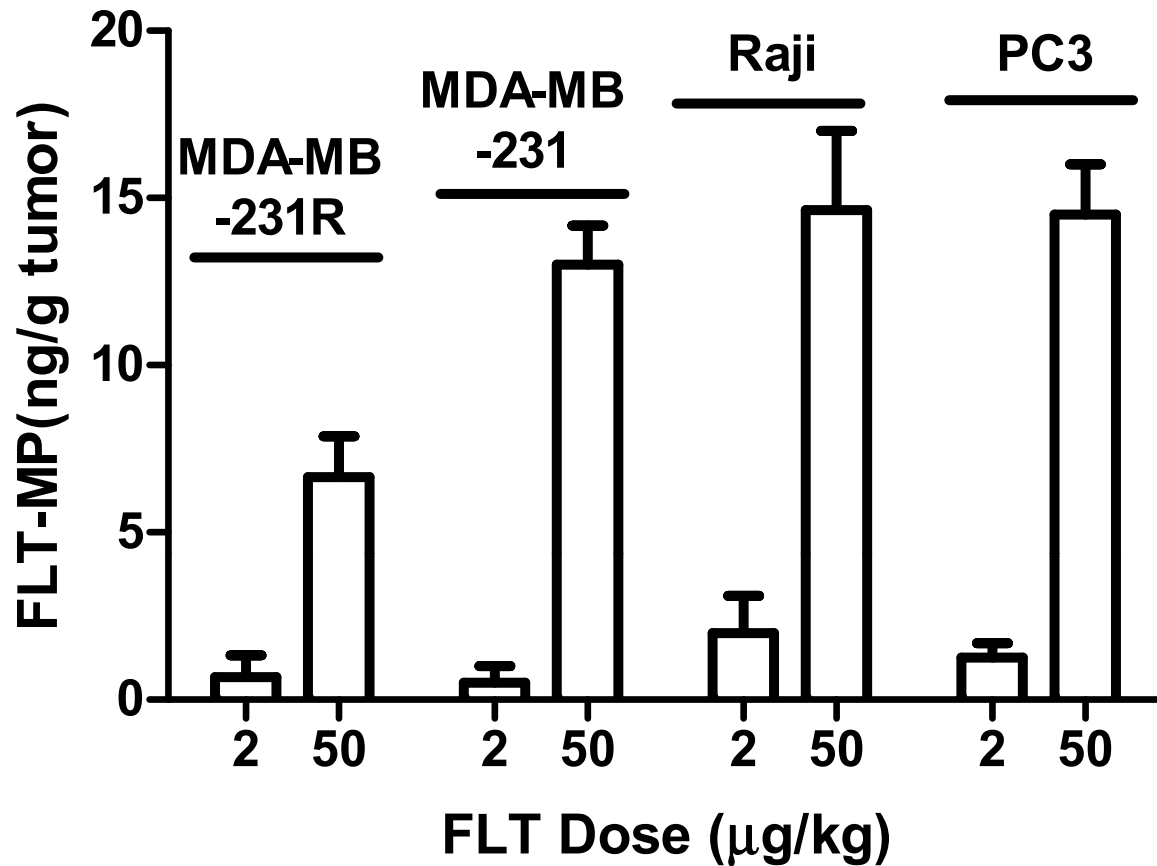


Supplement Figure 1. The correlation of [¹⁸F]FLT or [³H]thymidine uptake. Mice bearing tumors in the range of 200 – 600 mm³ were selected for study. Anesthetized tumor-bearing mice were iv injected with 15 μCi/kg (or 2 μg/kg) body weight of [³H] thymidine (Moravek Biochem). The specific activity = 2 μCi/mmol). Tumor and liver were harvested at 2 hrs post the tracer injection. Tissues were weighted and cut into small pieces and then placed in 10 ml Ecolume(TM) liquid scintillation fluid (VWR). The radioactivity of the samples was measured using a LS6500 Multi-purpose Scintillation Counter (Beckman Coulter). [¹⁸F]FLT or [³H] thymidine uptake was reported as a ratio of SUV (tumor SUV_{mean}/liver SUV_{mean}) activity. Values = mean ± SEM (n = 5).



Supplement Figure 2. Variable intrinsic thymidine levels in different tumor models while the corresponding plasma thymidine levels are in the similar range. Thymidine levels in tumor and plasma were analyzed via LC/MS analysis. Values = mean \pm SEM (n = 5).



Supplement Figure 3. Increased FLT tracer avidity by escalating the FLT dose level. FLT tracer was administered intravenously to the tumor bearing mice using the indicated dosages (2 and 50 µg/kg). Tumors were harvested at 2 hrs after the tracer administration and samples were processed to measure the FLT-MP levels via LC/MS analysis. Increased FLT dose resulted in higher FLT tracer avidity, as assessed by the FLT-MP level. Values = mean ± SEM (n = 5).