The effects of combinations of modified atmosphere packaging (MAP) with putrescine treatment on the storage life and fruit quality of apricot (*Prunus armeniaca* L. cv. Alyanak) were investigated. Alyanak apricots were harvested at commercial harvest maturity stage from an orchard in Turkey (Isparta) and transported immediately to the laboratory. Air precooling was applied by using cold air. After precooling, fruits were dipped in an aqueous solution containing different concentrations of putrescine (0.5, 1, 2 and 4 mM) and Tween 20 (0.01%) as a surfactant for 10 minutes. A control group was immersed in distilled water for 10 minutes. After treatments, fruits were dried with blotting paper and placed in modified atmosphere packages and stored at 0°C and 90±5% relative humidity conditions for 40 days. The weight loss, soluble solid contents (SSC), titratable acidity (TA), fruit firmness, fruit skin color, respiration rate, ethylene production and gas composition in package and sensory evaluation (external appearance, taste-aroma and internal browning) were determined initially and at 10-day intervals. Weight losses of apricots in all treatments were at low levels at the end of the storage. The control group displayed the highest firmness loss, while 1 mM putrescine treatment preserved firmness best. The putrescine treatments delayed internal browning of apricots compared to control group. According to the results of sensorial evaluation and firmness, apricot fruits treated with 0.5 mM and 1 mM doses of putrescine could be stored for 30-35 days with good quality.