We study a class of random block operators which appear as effective one-particle Hamiltonians for the anisotropic XY quantum spin chain in an exterior magnetic field given by an array of i.i.d. random variables. For arbitrary non-trivial single-site distribution of the magnetic field, we prove dynamical localization of these operators at non-zero energy. We also discuss a regime in which dynamical localization holds at all energies, yielding a zero-velocity-type Lieb-Robinson bound for the anisotropic XY chain. We conclude with brief remarks about our current investigation of localization properties of the Ising model and how this might help us strengthen our results on the XY chain. (Received January 25, 2014)