

The XY pyrochlore $\text{Yb}_2\text{Ti}_2\text{O}_7$, with pseudo spin 1/2 at the Yb^{3+} site, has been celebrated as potential host for the quantum spin ice state. The substitution of non-magnetic Ti with Pt gives $\text{Yb}_2\text{Pt}_2\text{O}_7$, a system with remarkably similar magnetic properties. The large nuclear gyromagnetic ratio ($\gamma_N = 9.15 \text{ MHz/T}$) of ^{195}Pt makes $\text{Yb}_2\text{Pt}_2\text{O}_7$ an ideal material for NMR investigation of its unconventional magnetic properties. Based on the ^{195}Pt nuclear spin-lattice relaxation rate $1/T_1$ and the magnetic specific heat C_p measured in a broad range of magnetic field B_{ext} , we demonstrate that the field-induced magnon gap linearly decreases with B_{ext} but additional low energy mode of spin excitations emerge below $\sim 0.5 \text{ T}$.