

As a first step of an R&D program towards large (100 kton scale) liquid argon TPCs, suitable to investigate the possibility of CP violation in the neutrino sector and to search for proton decay, the experiment T32 was proposed to the JPARC-PAC. The main goal is to study the response of charged kaons with a momentum of few 100 MeV/c in a liquid argon TPC. This is especially important to estimate efficiency and background for nucleon decay searches in the charged kaon mode ($p \rightarrow \bar{\nu}K^+$, etc.). In October 2010 we had a first run with a prototype liquid argon TPC. In my talk I will first describe the experimental setup, including the K1.1BR beamline of the JPARC slow extraction facility and a prototype 250L LAr TPC. Since the beamline was instrumented with TOF counters, a gas- and a Fitch-Cherenkov detector it was possible to trigger on kaons, protons, pions or positrons. First results of a study of the stopping power of those particles will be presented as well as a comparison with a MC simulation.