

Table S1

Antibodies used in this study.

Antibodies (epitope)	Type	Dilution	Source
1175 (phosphorylated α syn (pS129))	Rabbit polyclonal	1/2000	[26]
#64 (phosphorylated α syn (pS129))	Mouse monoclonal	1/1000	[5]
anti-mouse syn (mouse α syn)	Rabbit monoclonal	1/1000	Cell Signaling Technology
LB509 (human α syn specific)	Mouse monoclonal	1/1000	[27]
pS396 (phosphorlated tau (pS396))	Rabbit polyclonal	1/2000	CALBIOCHEM
Biotin-AT8 (phosphorlated tau (pS202/pT205))	Mouse monoclonal	1/50	Thermo
pTDP43 (phosphorylated TDP-43 (pS409/410))	Rabbit polyclonal	1/1000	[28]
anti-Aβ (mouse A β (1-24) peptide)	Rabbit polyclonal	1/1000	kindly gifted from Dr. Kametani
α-tubulin	Mouse monoclonal	1/3000	Sigma

Figure S1

HPLC charts of recombinant mouse α syn used in this study. Mouse syn monomer showed only one peak that is derived from msyn monomer. Mouse syn fibril gave two peaks at 0.14 min (guanidine HCl) and at 6.8 min (msyn fibril).

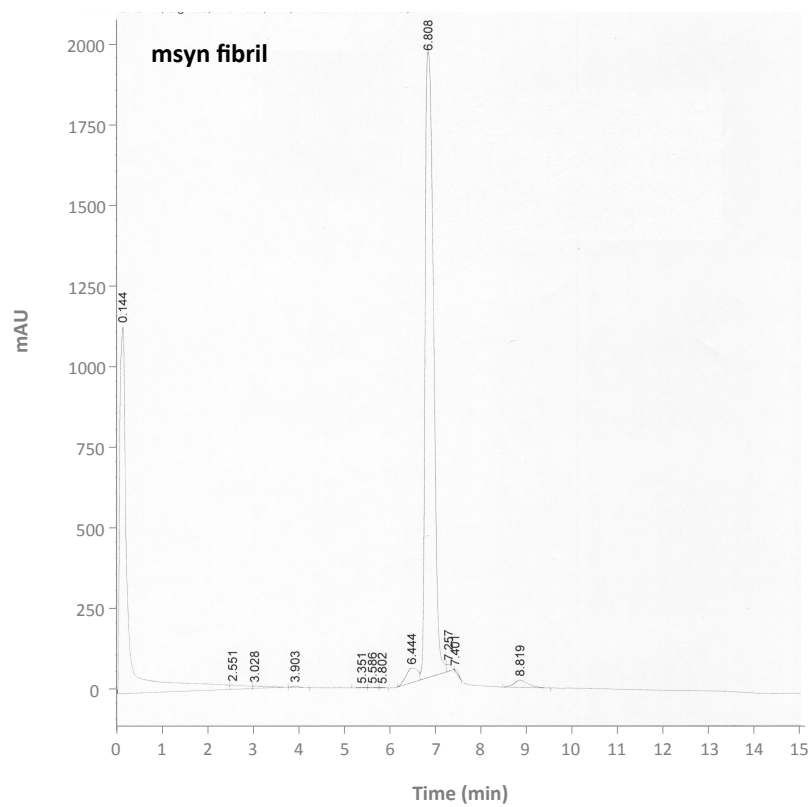
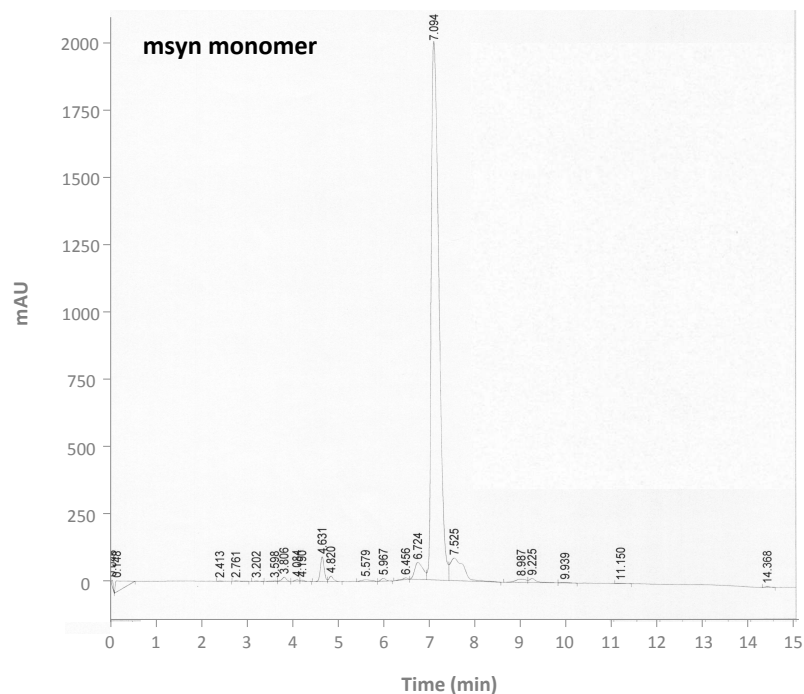


Figure S2

α Syn and tau accumulation was never observed in fibril-injected α syn KO mice at 3 months after injection. (A) No psyn-positive pathology was observed with 1175 antibody. (B) Tau accumulation was not detected with pS396 antibody. Str: striatum, Amy: amygdala, SN: substantia nigra, sensory ctx: sensory cortex. Scale represents 50 μ m.

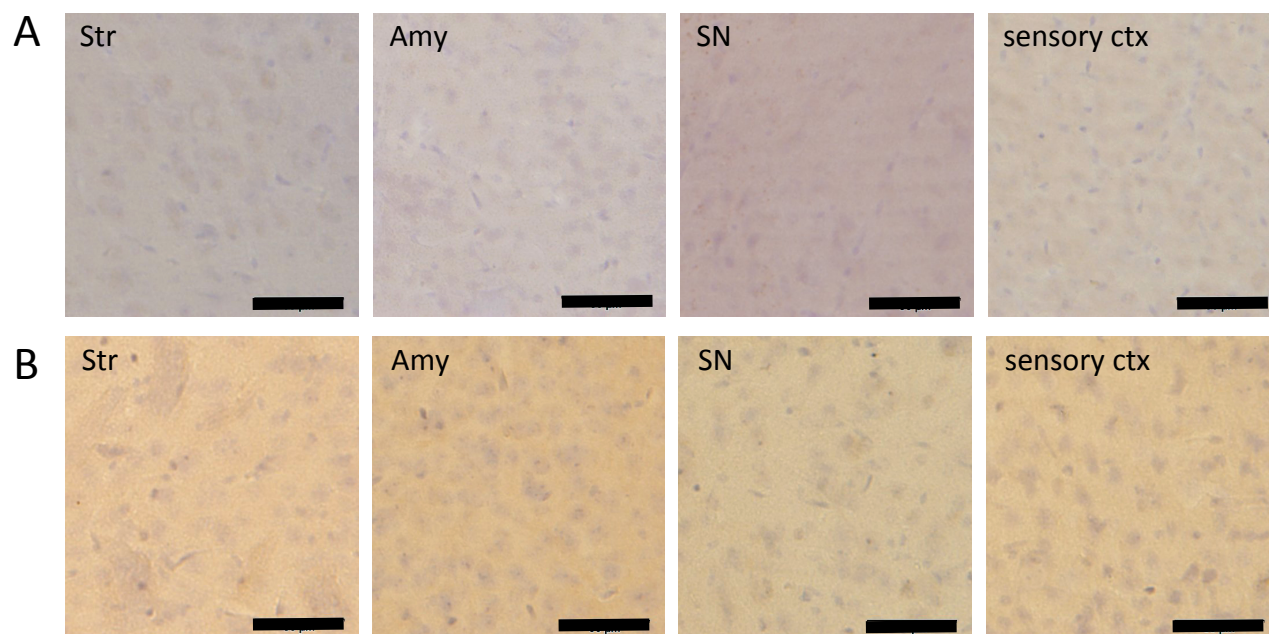


Figure S3

A β accumulation was not observed in α syn fibril-injected WT mice at 1 month post injection. Sections were stained with anti-mouse A β antibody. Mice injected into SN (A), Str (B), and EC (C). SN: substantia nigra, Amy: amygdala, ST: stria terminalis, Str: striatum, Ctx: cortex, EC: entorhinal cortex, DG: dentate gyrus. Scale represents 50 μ m.

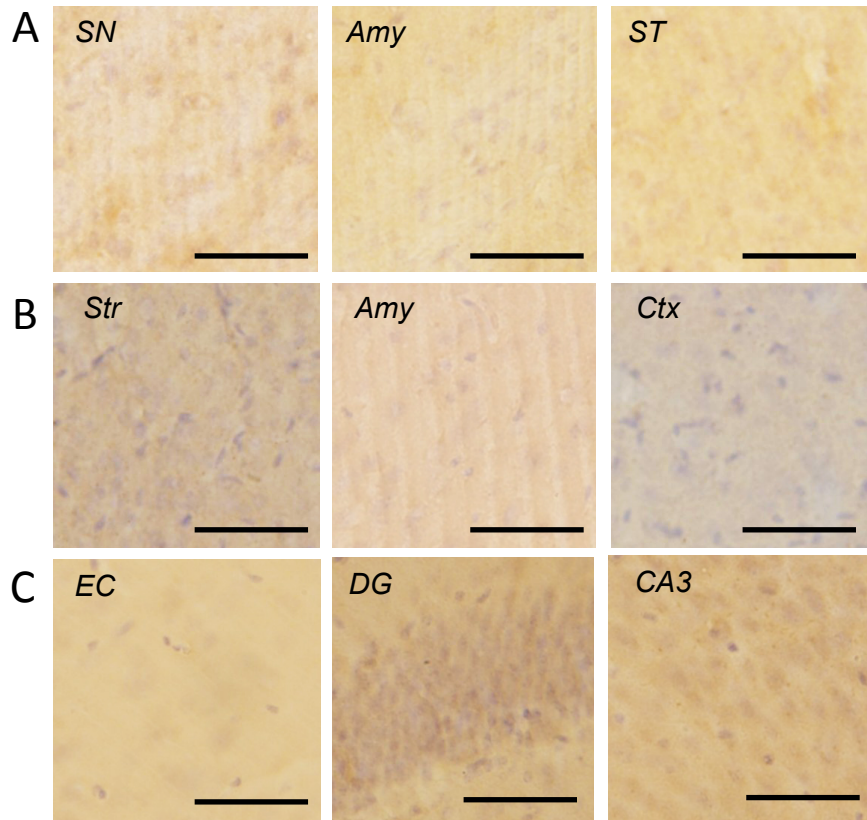


Figure S4

Biochemical analysis of α syn KO mice injected with human α syn fibrils. The brain was divided into two parts at the longitudinal fissure of the cerebrum. Sarkosyl-insoluble fractions were obtained from the right and left brains, and analyzed by immunoblotting with #64, LB509 or anti-mouse α syn antibodies. Exogenous human α syn fibrils were detected in sarkosyl-insoluble fractions and were not phosphorylated at 0 and 7 days after injection. They were subsequently degraded and disappeared within 30 days post injection. Phosphorylated α syn accumulation was never observed at 90 days after injection.

