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In vivo Animal Models

Parkinson's Disease

LRRK2 G2019S KI/KI Mouse Model

This Parkinson's disease knock-in mouse model carries the human G2019S gain-of-function mutation whitin the endogenous murine LRRK2 gene.

- Unchanged total LRRK2 levels
- Unchanged pS935 LRRK2 levels
- Unchanged basal motor function
- Unchanged cognitive abilities
- Increased pS1292 LRRK2 levels
- Phosphorylation status modifiable by LRRK2 inhibitor MLi-2

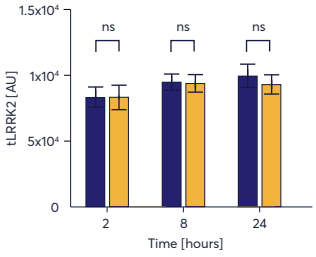
iPSCs with LRRK2 can be used for *in vitro* analysmutationes

Figure 1:
Time-dependent inhibition of LRRK2 kinase activity upon single oral MLi-2 treatment. LRRK2 G2019S KI/KI mice received a single dose of MLi-2 or vehicle and were sacrificed 2, 8, or 24 hours later. Brain levels of total LRRK2 **(A)**, pS935 LRRK2 **(B)**, and pS1292 LRRK2 **(C)** were quantified by immunosorbent assay. Mean ± SEM; n = 8 per group. Two-way ANOVA with Bonferroni's post hoc test; **p<0.01, ***p<0.001; ns, not significant.

Figure 1

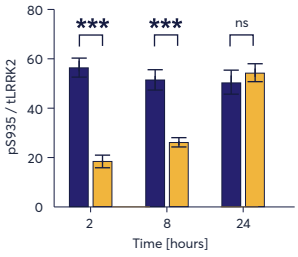
Total LRRK2 Levels

A



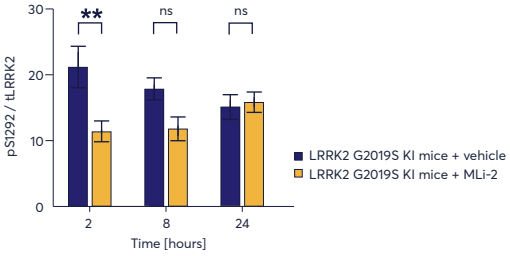
pS935 LRRK2 Levels

B



pS1292 LRRK2 Levels

C



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Discovery

Important note:
Representative data are shown throughout this document. However, biological variability might cause deviations from shown data.

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