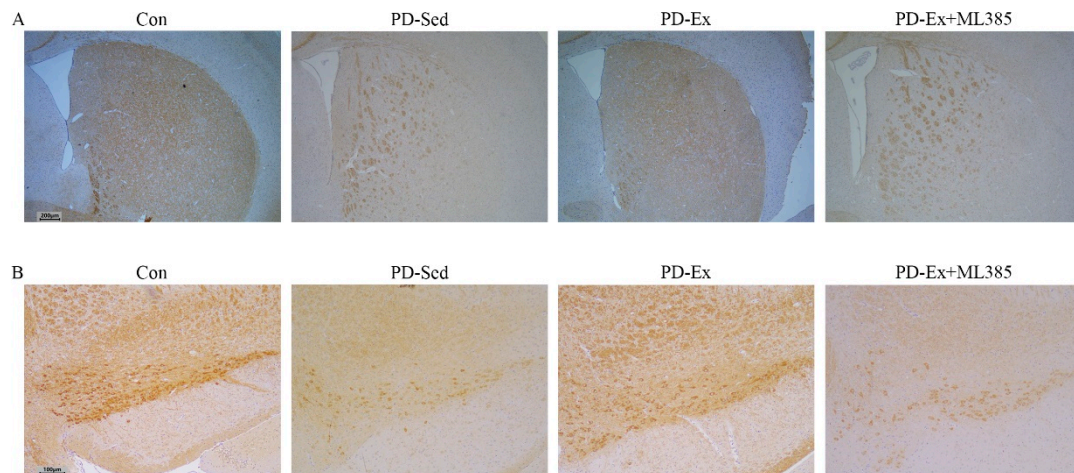


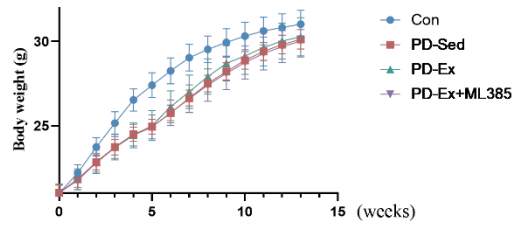
Supplementary Figure S1



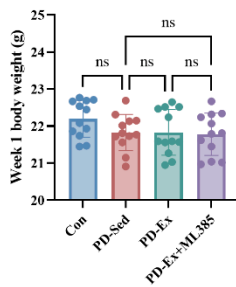
Supplementary Figure S1. (A) Representative immunohistochemical staining image of striatal TH (scale bar: 200 μ m); (B) Representative immunohistochemical staining image of TH in the SNc region (scale bar: 100 μ m);

Supplementary Figure S2

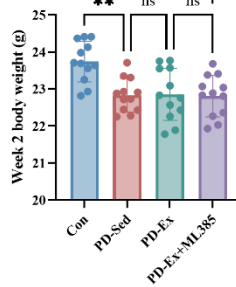
A



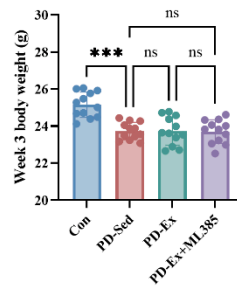
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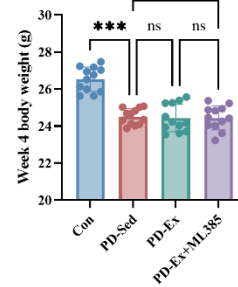
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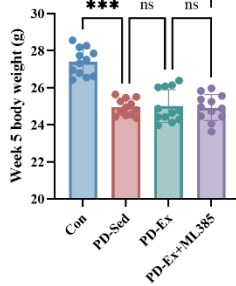
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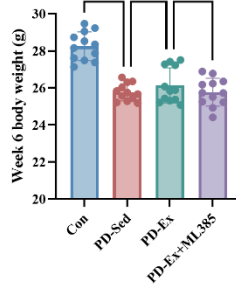
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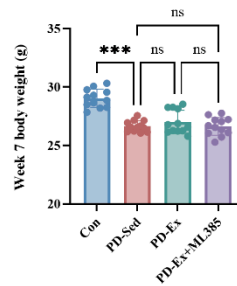
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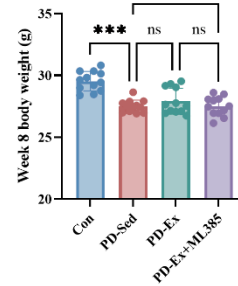
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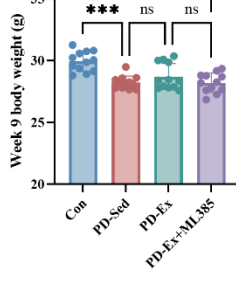
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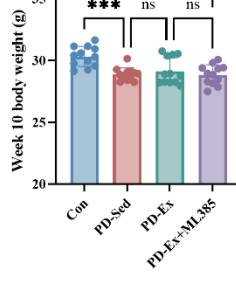
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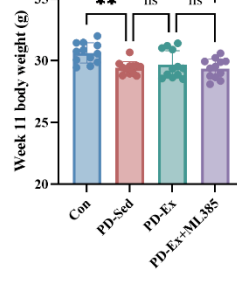
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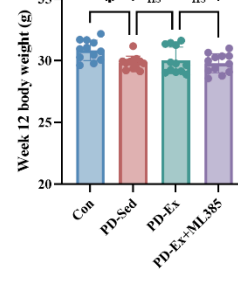
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L

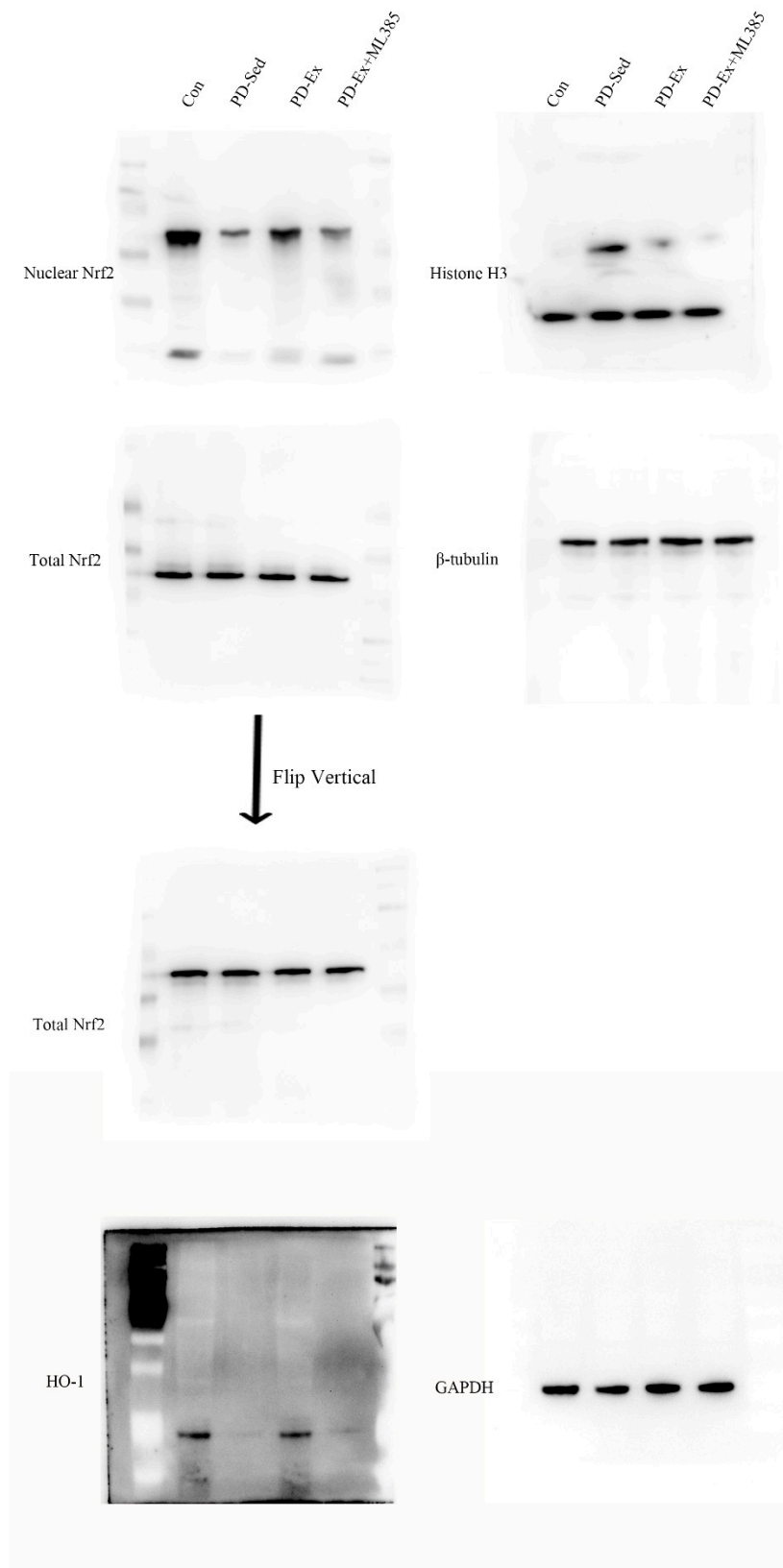


M



Supplementary Figure S2 comprehensively illustrates the modeling results and weekly average body weights of mice throughout the entire exercise cycle: (A) weekly average weights across all four groups; (B–M) weekly inter-group weight comparisons from weeks 1 to 12, respectively. Repeated-measures ANOVA revealed that only the PD-Sed group exhibited significantly lower overall body weight than the Con group, while exercise intervention and inhibitor administration did not alter the trend in weight changes. Data are presented as Mean $\pm$ SEM, $n = 12$ per group. * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$; ns $P > 0.05$.

Supplementary Figure S3



Supplementary Figure S3 Full Western blot membrane images for target proteins and loading controls.