R6/2 Transgenic Mouse Model

R6/2 mice express a N-terminal fragment of the Huntington's Disease (HD) gene under control of human gene promoter elements with >120 CAG repeats that are sufficient to produce the phenotype of HD:

- HTT aggregates
- Motor deficits
- Learning deficits
- Mean survival of appr. 100 days

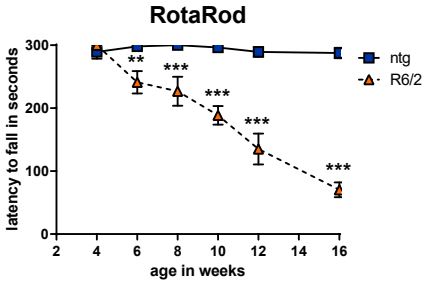

Figure 1: RotaRod test of R6/2 mice. Motor coordination expressed as time to fall off the rod in seconds of R6/2 and ntg mice. Mean ± SEM, Two-way ANOVA with Bonferroni's *post hoc* test; R6/2: n = 10, ntg: n = 19; **p<0.01; ***p<0.001.

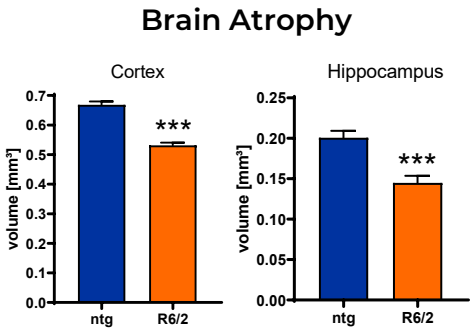

Figure 2: Brain atrophy in 4 month old R6/2 mice reflecting an approximately 20% grey matter loss in both investigated regions compared to age-matched ntg littermate. Mean + SEM; unpaired t-test; n = 5; ***p<0.001.

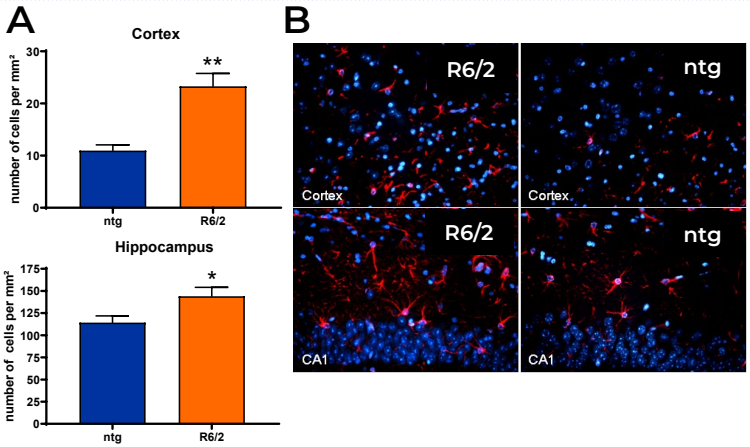

Figure 3. Astrogliosis in R6/2 mice. Quantitative and qualitative comparison of astrocytosis in R6/2 and non- transgenic (ntg) mice. A: Number of astrocytes per mm². Mean ± SEM; unpaired t-test; n = 5; *p<0.05; **p<0.01 B: Representative images of GFAP (red) in primary somatosens. cortex and hippocampal CA1 region. DAPI (blue).

Mangiarini L., Sathasivam K., Seller M., Cozens B., Harper A., Hetherington C. , Lawton M., Trottier Y. , Lehrach H., Davies S.W., Bates G.P. Exon 1 of the HD Gene with an Expanded CAG Repeat Is Sufficient to Cause a Progressive Neurological Phenotype in Transgenic Mice. Cell, 1996, Vol. 87, 493–506.

QPS Austria
Parkring 12, 8074 Grambach, Austria
Email office-austria@qps.com
Website www.qpsneuro.com
Tel +43 316 258 111

QPS LLC
3 Innovation Way, Suite 240
Newark, DE 19711, USA
Email info@qps.com
Website www.qps.com