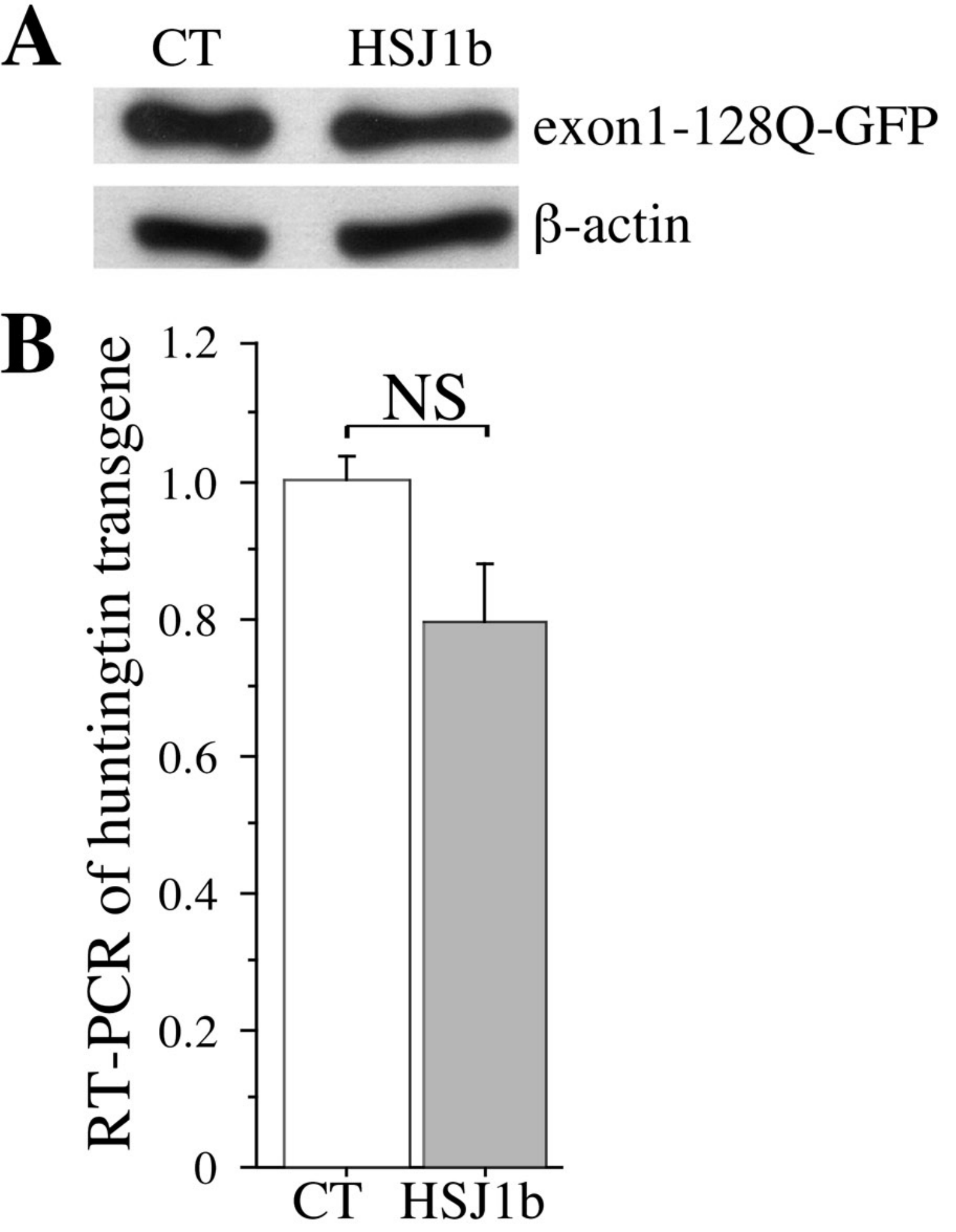
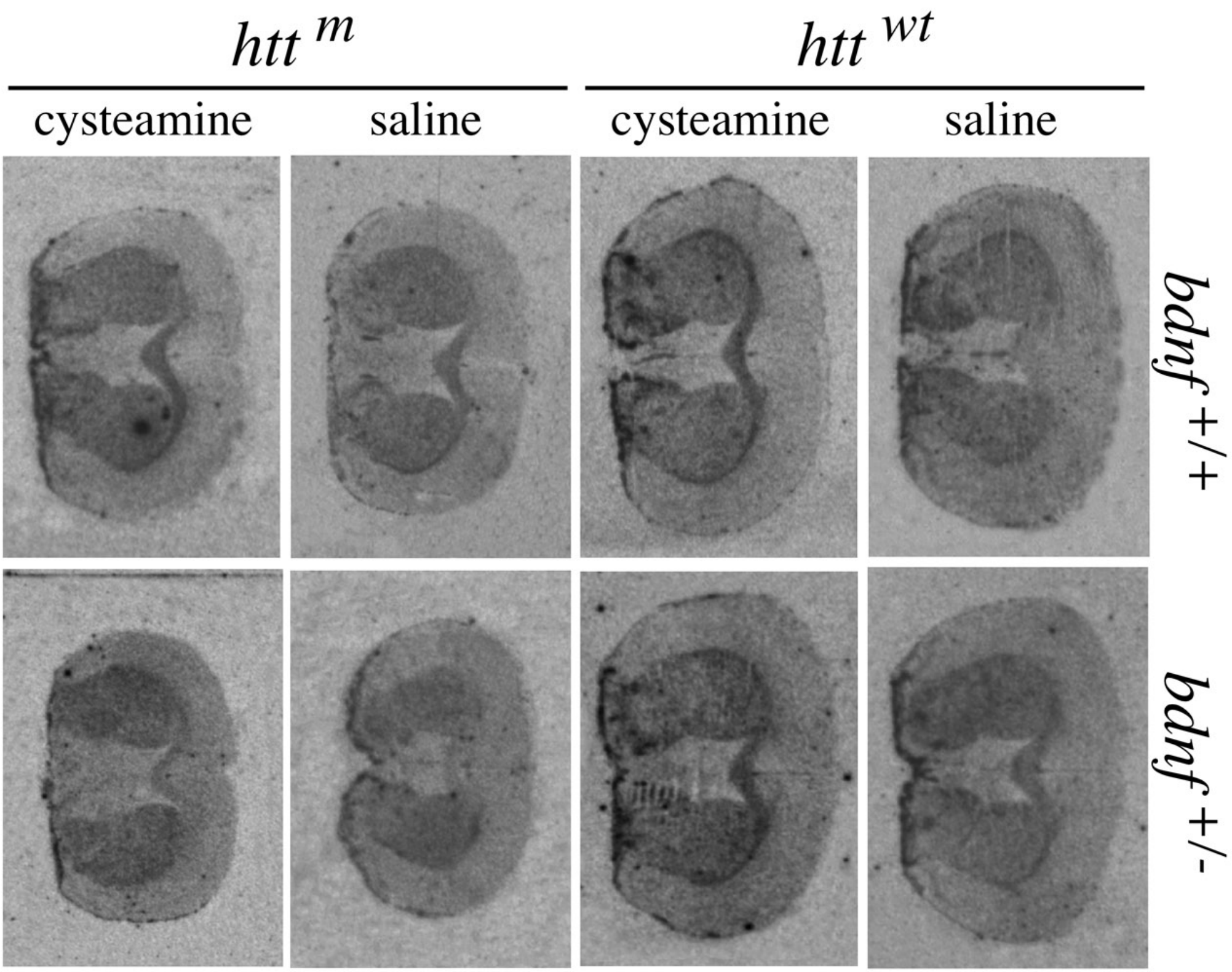
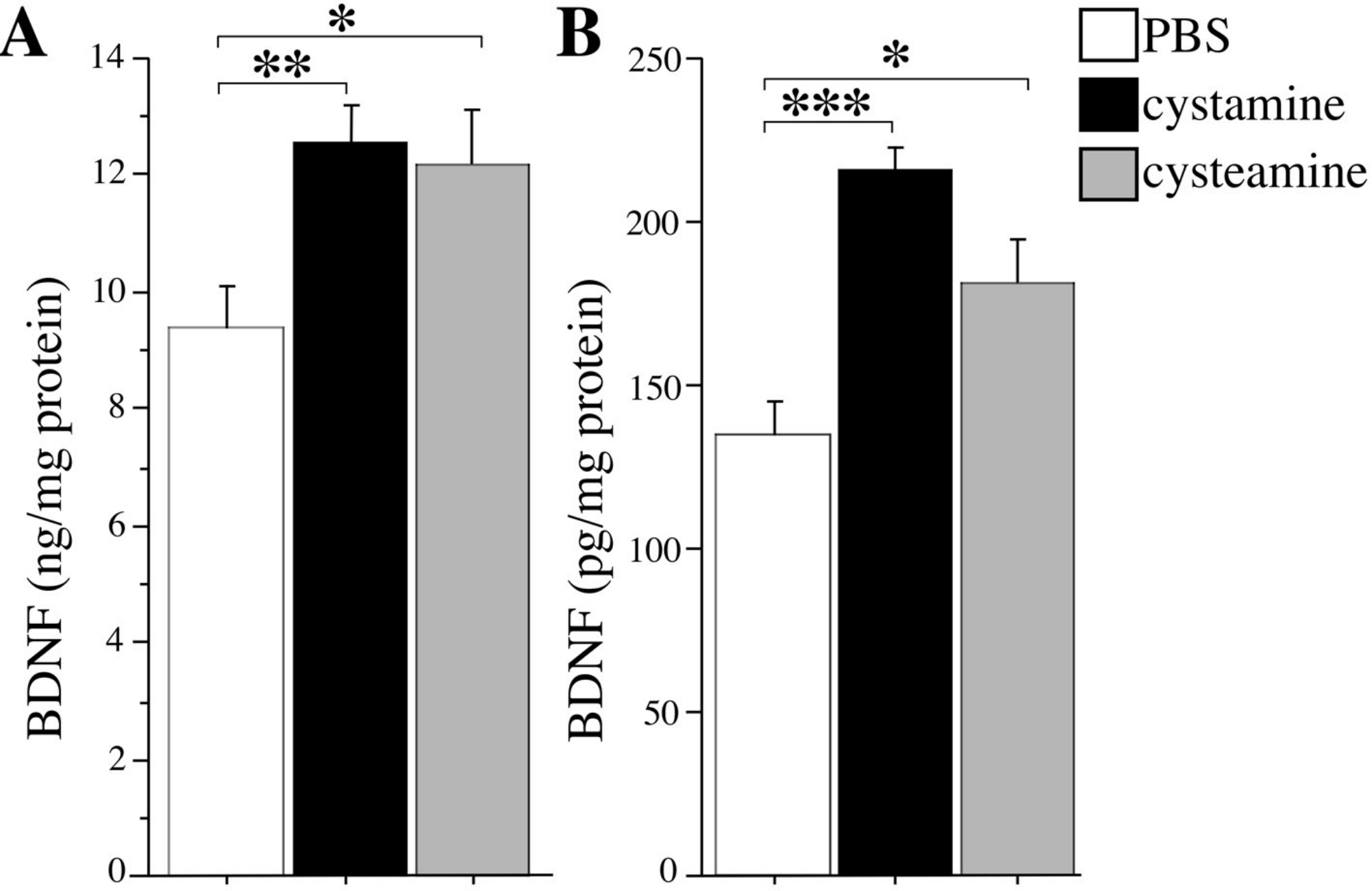

A
CT
HSJ1b
exon1-128Q-GFP
β-actin
B
RT-PCR of huntingtin transgene
1.2
1.0
0.8
0.6
0.4
0.2
0
NS
CT
HSJ1b


htt m
htt wt
cysteamine
saline
cysteamine
saline
bdnf +/+
bdnf +/-


A
B
PBS
cystamine
cysteamine
BDNF (ng/mg protein)
BDNF (pg/mg protein)
0
2
4
6
8
10
12
14
50
100
150
200
250
*
**
***

Supplemental figures

Figure S1 Western blotting (A) and quantitative RT-PCR (B) revealed no significant change in the expression of exon1-128Q-GFP in C. elegans with the addition of HSJ1b.

(A) Representative Western blotting analysis of exon1-128Q-GFP fusion protein in control and in HSJ1b expressing worms. Quantification of at least three independent experiments performed in triplicates revealed no statistical difference in the amount of the 128Q fusion protein compared to controls by Western blotting (Student *t*-test, $t_{[18]} = 1.414$; NS).

(B) Data from at least three independent experiments performed in triplicates revealed no statistical difference in expression of the 128Q transgene in C. elegans compared to controls by quantitative RT-PCR (Student *t*-test, $t_{[19]} = 0.532$; NS).

Quantitative RT-PCR of transgenic strains and analysis were done as described elsewhere (33). Oligonucleotides used for huntingtin transgenics: 5'-CACTACTGGAAAACTACCTG-3' and 5'-TGTAGTTCCCGTCATCTTTGA-3'.

Figure S2 The decrease in substance P-positive neurons (SP) is similar in R6/1 ($bdnf^{+/+}htt^{m}$) and $bdnf^{+/-}htt^{m}$ mice. SP mRNA levels of expression were not modified by cysteamine treatment.

Figure S3 Cystamine and cysteamine increase BDNF levels in the brain (A) and blood (B) of mice treated for 12 weeks. (A) Data from 2 independent experiments with 3 to 8 mice per condition (ANOVA, $F_{[2, 17]} = 5.00$; $P = 0.0196$) revealed a statistically significant increase in the amount of BDNF in the brain of mice treated with cystamine (posthoc Fisher's test, $P = 0.0085$) or with cysteamine (posthoc Fisher's test, $P = 0.0234$) compared to controls. (B) Data from 2 independent experiments with 3 to 8 mice per condition (ANOVA, $F_{[2, 14]} = 13.50$; $P = 0.0005$) revealed a statistically significant increase in the

amount of BDNF in the serum of mice treated with cystamine (posthoc Fisher's test, P = 0.0001) or with cysteamine (posthoc Fisher's test, $P = 0.01$) compared to controls.