

SUPPLEMENTARY MATERIALS :TABLES AND FIGURES

Supplementary Table S1

Table showing primer sequences used for Realtime PCR experiments and molecular cloning

Primer Name	Sequence
Grb2_ups_For	5'-CCG CTC GAG TCT TCT GCT GCT TCT CTC GAT-3'
Grb2_ups_Rev	5'-CCC AAG CTT TCA CGT CCT TTC TAC CAA AAC A-3'
Grb2_RT_1	5'-AAA TGC TCA GCA AAC AGC GG-3'
Grb2_RT_2	5'-TGA AGT GCT GCA CAT CAT TTC C-3'
FOXD3_RT_1	5'- TCT GCG AGT TCA TCA GCA ACG-3'
FOXD3_RT_2	5'- TTG ACG AAG CAG TCG TTG AGC-3'
Beta actin_RT-1	5'-TCC TGT GGC ATC CAG GAA ACT-3'
Beta actin_RT_2	5'- GAA GCA TTT GCG GTG GAC-3'

Supplementary Table S2**List of Transcription Factors From MATCH output with known expressions in HD**

Transcription Factor	Binding site position	Core Match	Matrix Match	Expression in HD	Regulation
HNF-3beta	225	1.000	0.975	Upregulated	Positive/ negative
FOXD3	226	1.000	0.963	Upregulated	Positive/ negative
Pax-6	2908 9271	0.792 1.000	0.804 0.833	Up/downregulated	negative
Pax-4	4676 8702	0.979 1.000	0.836 0.843	downregulated	negative
Elk-1	5641	1.000	0.922	downregulated	positive
Evi-1	7620	0.842	0.862	upregulated	negative

Supplimentary Table S3**List of Transcription Factors with unknown expressions in HD**

Transcription Factor	Binding site position	Core Match	Matrix Match
v-Maf	1152	1.000	0.921
v-Myb	1682	1.000	0.966
	1802	1.000	0.971
	7269	1.000	0.971
HNF-1	2734	0.794	0.844
CCAAT box	2752	1.000	0.981
Oct-1	2867	1.000	0.940
	4655	0.909	0.893
	8435	0.992	0.990
NF-Y	2988	1.000	0.992
AP-1	3052	1.000	0.991
	4689	1.000	0.982
HNF-1	6364	0.942	0.868
COMP-1	5825	1.000	0.814
	6942	0.822	0.825
GATA-1	7566	0.993	0.991
Hand1	7799	1.000	0.961
USF	8117	1.000	1.000

Reference for Table S2:

[1] Hodges, A., Strand, A. D., Aragaki, A. K., Kuhn, A., Sengstag, T., Hughes, G., Elliston, L. A., Hartog, C., Goldstein, D. R., Thu, D., Hollingsworth, Z. R., Collin, F., Synek, B., Holmans, P. A., Young, A. B., Wexler, N. S., Delorenzi, M., Kooperberg, C., Augood, S. J., Faull, R. L., Olson, J. M., Jones, L., and Luthi-Carter, R. (2006) *Hum Mol Genet* **15**, 965-977

[2] Lee, J. M., Ivanova, E. V., Seong, I. S., Cashorali, T., Kohane, I., Gusella, J. F., and

MacDonald, M. E. (2007) *PLoS Genet* **3**, e135

[3] Gene expression atlas <http://www.ebi.ac.uk/gxa/>

[4] Transfac Match <http://www.gene-regulation.com/pub/programs.html>

Supplementary Figure legends:

Fig S1: Representative confocal image of neuro2a cell, co-transfected with Grb2 dsred and 145QHttexon1 and immunostained with Rab7 antibody and nuclear stained with DAPI.

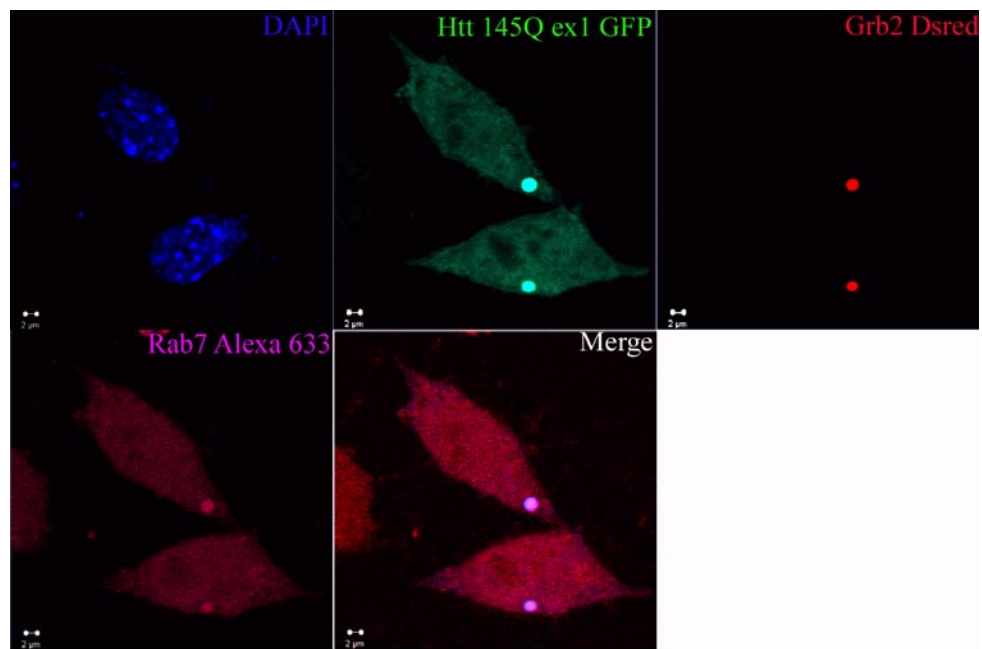
Fig S2: Bar diagram of the mean optical densities of bands obtained in three independent filter retardation assay (n=3) with neuro2A cells transfected with Grb2-Dsred; 145QHttex1 GFP and Grb2-Dsred; 145Q httex1 GFP; and 145Q Httex1 and Dsred. In all cases total input loads were 20µg and 40µg.

Fig S3: MTT assay result of three independent (n=3) experiments of STHdhQ7/7 and STHdhQ111/111 and STHdhQ111/111 Grb2 si cells and transfected with Grb2-dsred and Dsred respectively.

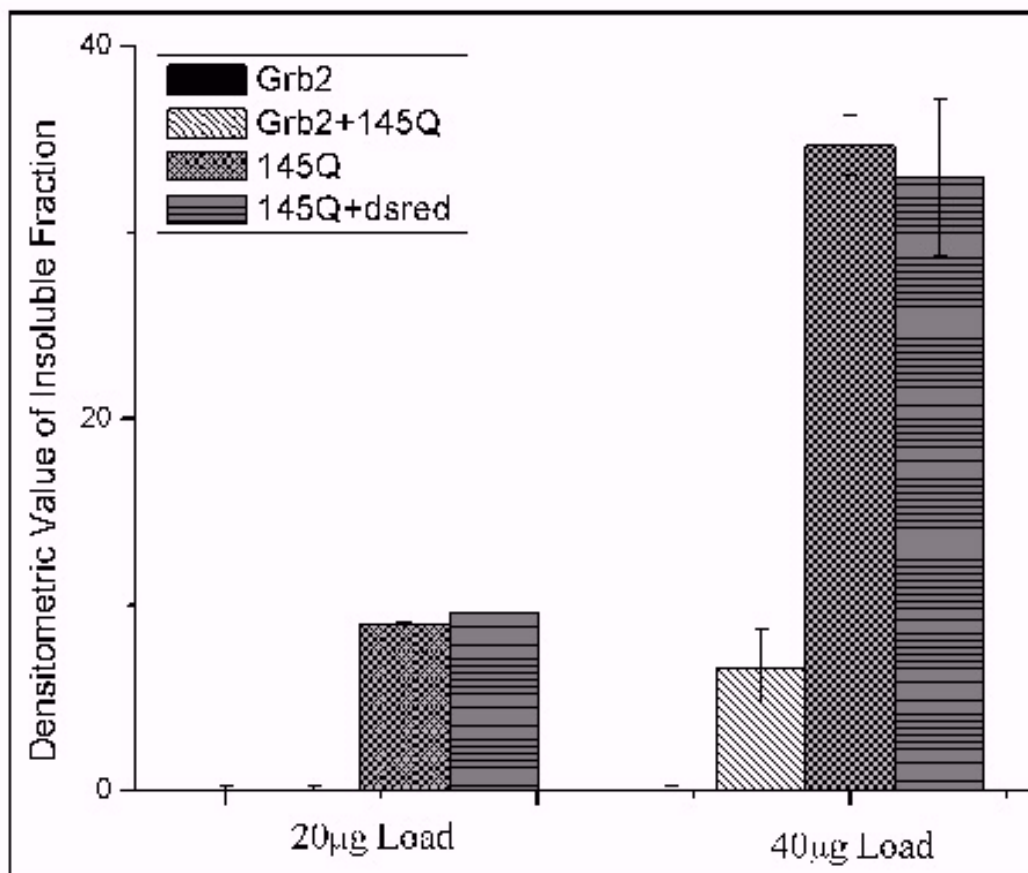
Fig S4: Representative confocal images showing endogenous distribution of Htt, Grb2 and LC3 in STHdhQ7/7 and STHdhQ111/111 cells.

Fig S5: A. ICQ analysis of images in B (n=20) B. Pearson's correlation coefficient of images in B (n=20) of Fig.6.

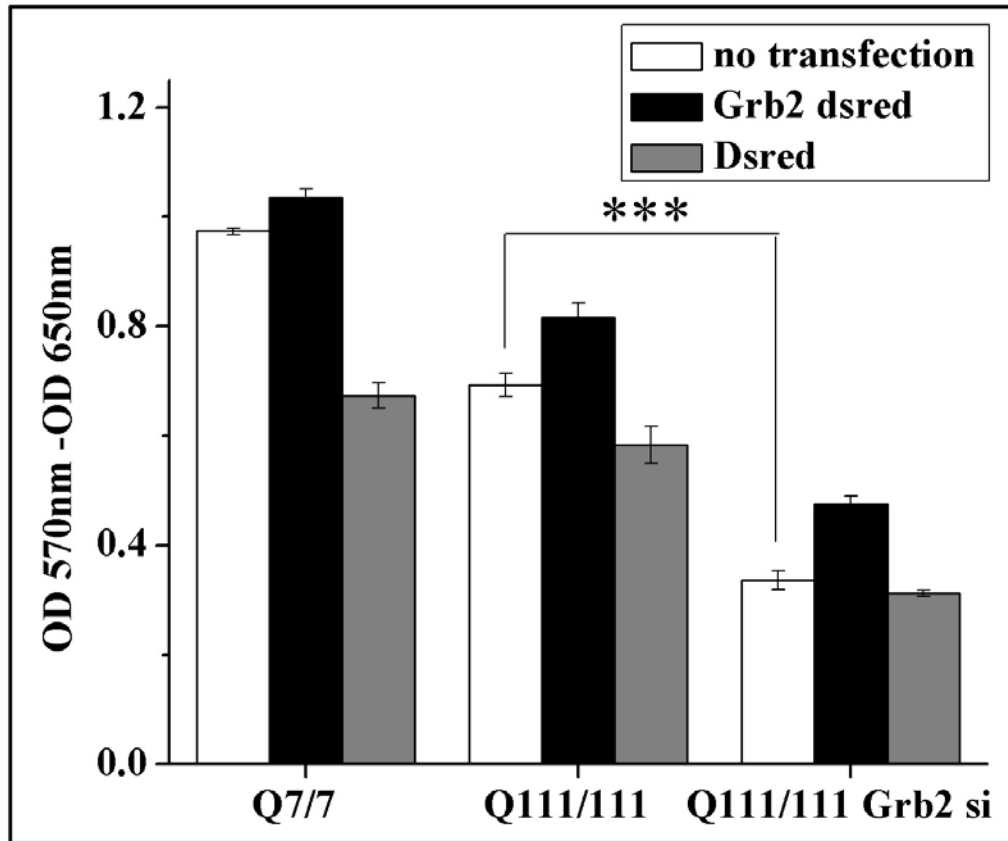
Fig S6: E. Representative confocal images of endogenous Htt expression in STHdhQ7/7 and STHdhQ111/111 cells transfected with DsredC1 empty vector and Grb2 dsred. F. Endogenous Htt expression in STHdhQ111/111 Grb2 si cells , STHdhQ111/111Grb2 si cells transfected with Grb2 dsred and Dsred C1 vector.



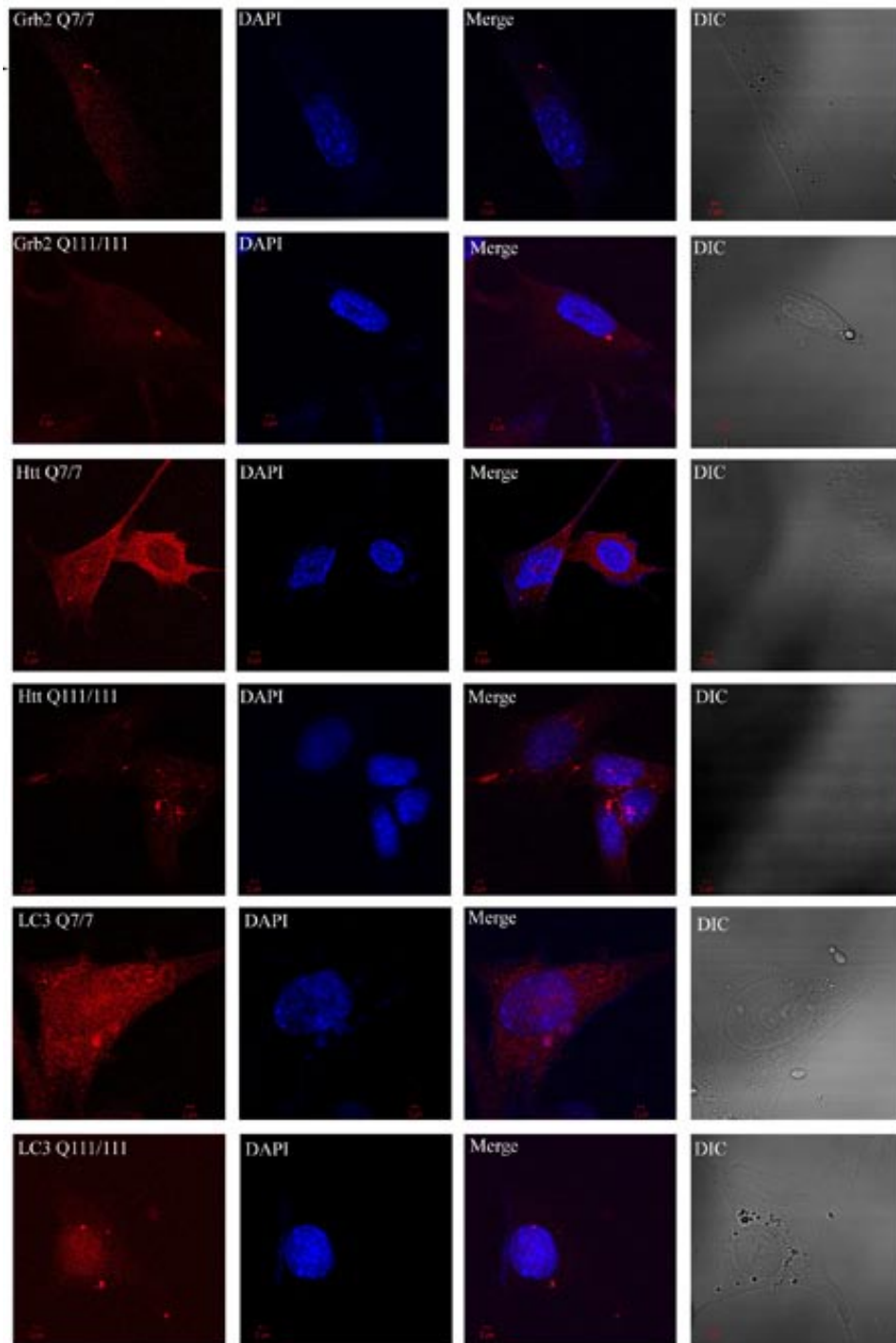
Supplementary Figure S1



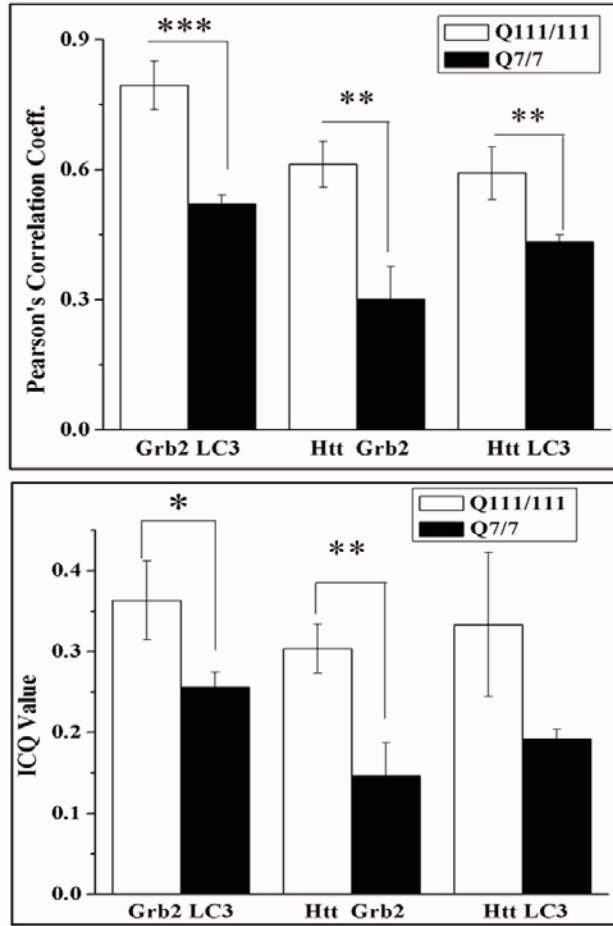
Supplementary Figure S2



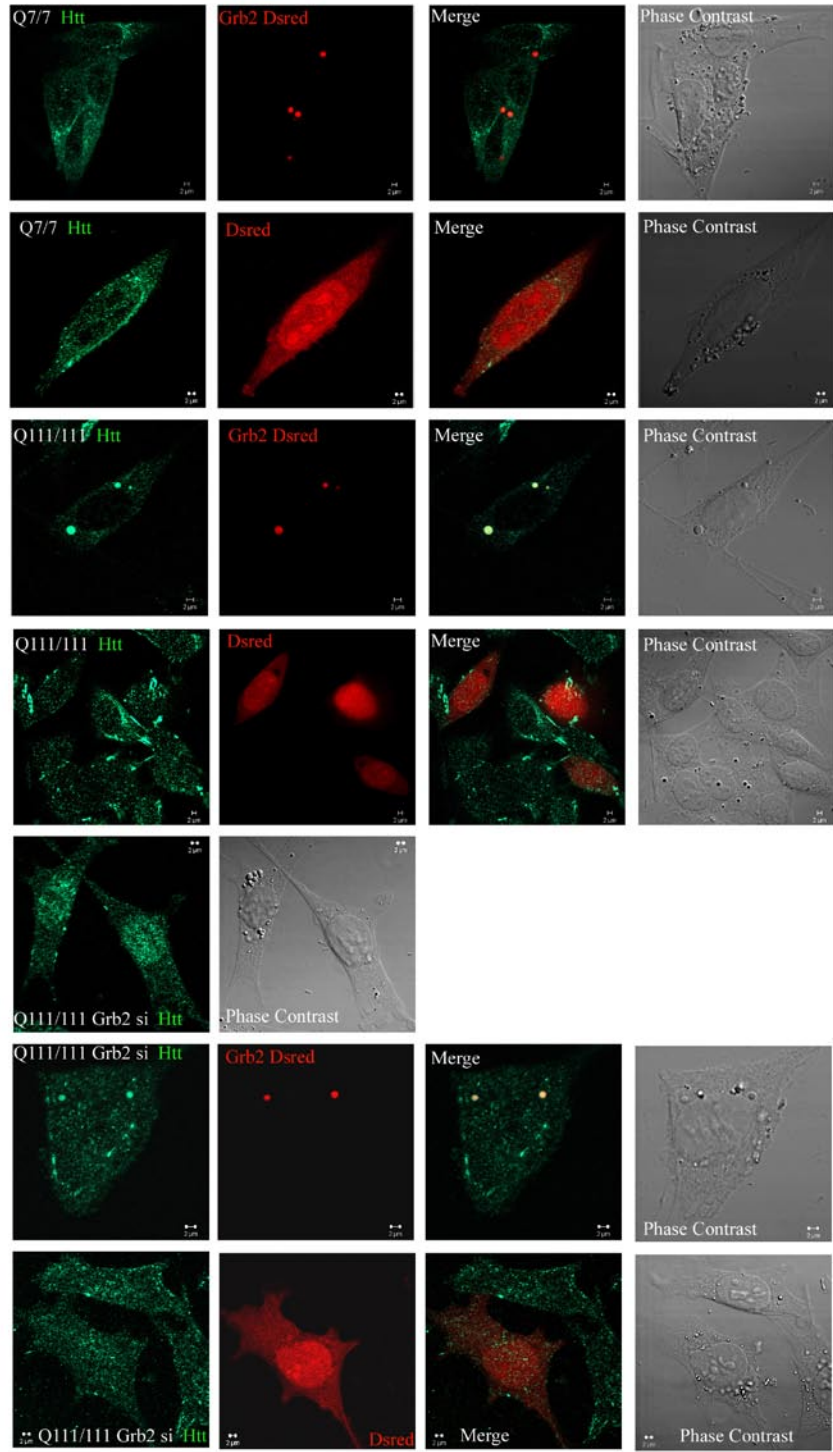
Supplementary Figure S3



Supplementary Figure S4



Supplementary Figure S5



Supplementary Figure S6