## SUPPLEMENTAL DATA

Supplemental Figure 1. Quantification and statistical analysis of HSF1 in control versus riluzole-treated NG108-15 or N2a neuroprogenitor cells. Cells were treated with 1-2  $\mu$ M riluzole for 16 hr and HSF1 was probed by Western blot as described in the text. The results in NG108-15 cells and N2a cells are similar. The integrated density of the HSF1 band was determined by Image J and the raw data for the ten separate pairs/experiments are shown in black. Student's t-test of the two sets of data (paired, two tailed) gave P value of 0.00057 indicating extremely significant difference. We have also analyzed the data by ratio t tests . For this, the integrated density was transformed to logarithm (in red) for a paired, two-tailed t-test. The P value for this ratio t test is 1.80817E-05.

Control Riluzole		Control	Riluzole	Control, log10	Riluzole, log10
	1	30359	49906	4.482287	4.698153
	2	26046	66867	4.415741	4.825212
	3	47347	72003	4.675292	4.857351
_	4	30455	58408	4.483659	4.766472
-	5	28580	51729	4.456062	4.713734
	6	16057	24072	4.205664	4.381511
	7	13465	28724	4.129195	4.458242
-	8	6965	16734	3.842927	4.223592
-	9	17404	20978	4.240656	4.321757
	10	12496	23354	4.096786	4.368354

The probability associated with a Student's paired t-Test, with a two-tailed distribution: TTest(array1,array2,tails,type): P=0.00057 (raw data), P=1.80817E-05 (log10 data)
Note: tail=2, type=paired, 1.

Supplemental Figure 2. The effect of riluzole in enhancing the basal and heat shock induced hsp70-luciferase reporter gene expression required a pre-incubation period. The same experiment as that shown in Fig. 3A/B was repeated with riluzole added immediately prior to heat shock. Luciferase activity was assayed using the Dual-Glo luciferase assay system from Promega (E2920) as described. Result represents average  $\pm$  standard deviation (SD) of 4 separate determinations.

