

Supplemental Figure 1 HSV-1 infection induces Egr-1 expression in human neuronal cells. SK-N-SH cells were infected with strain KOS at a MOI of 0.1., and total RNA was extracted from infected cells and subjected to microarray analysis as previously described^{s1,s2}. Gene expression levels are represented by digital intensities, which are derived from comparison of signals of cells infected with virus at indicated times to that at 0 h p.i. Data are representative of 3 experiments.

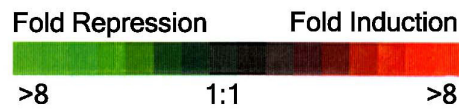
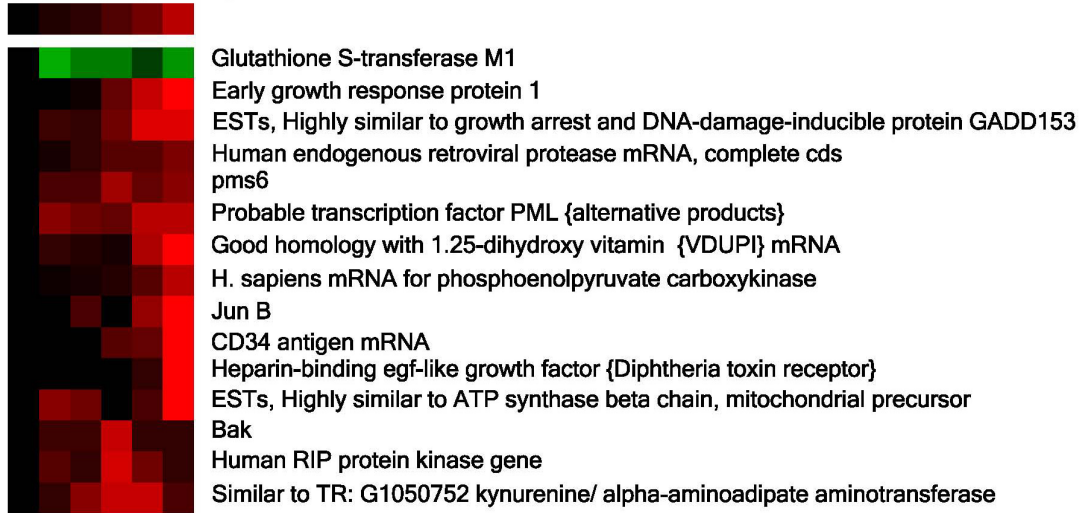
Supplemental Figure 2 HSV-1 infection enhances *Egr-1* promoter activity. (a) Diagram of *Egr-1* promoter contains a TATA box, serum-response elements (SRE), cyclic AMP response elements (cAMP), and binding sites for transcriptional factors Sp1, Ap1, NF- κ B, and Egr-1(EBS). (b) Constructs of *Egr-1* promoter used to transfect SK-N-SH cells 6h before infection for reporter analysis. (c) Analysis of *Egr-1* promoter reporters in SK-N-SH cells mock-infected or infected with strain KOS at a MOI of 0.1 48 h after infection. PGL3 is the vector for promoter constructs. The activity of full-length *Egr-1* promoter in mock-infected cells was set as 100%. Data show mean + SEM from 3 independent experiments, each done in duplicate.

Supplemental Figure 3 The viral loads in tissues of HSV-1-infected mice treated with DNazymes topically on corneas. Wild-type C57BL/6 mice were treated with a DNzyme against *Egr-1* (*Egr-1* DNzyme, $n = 6$) or a scramble oligomer (Scramble, $n = 6$) and infected with strain 294.1 topically on corneas. Mouse brains (**A**), trigeminal ganglia (TG; **B**), and eyes (**C**) were harvested at day 5 p.i. to titrate for infectious virus. Each point represents an individual sample, and the bars represent mean values for each group.

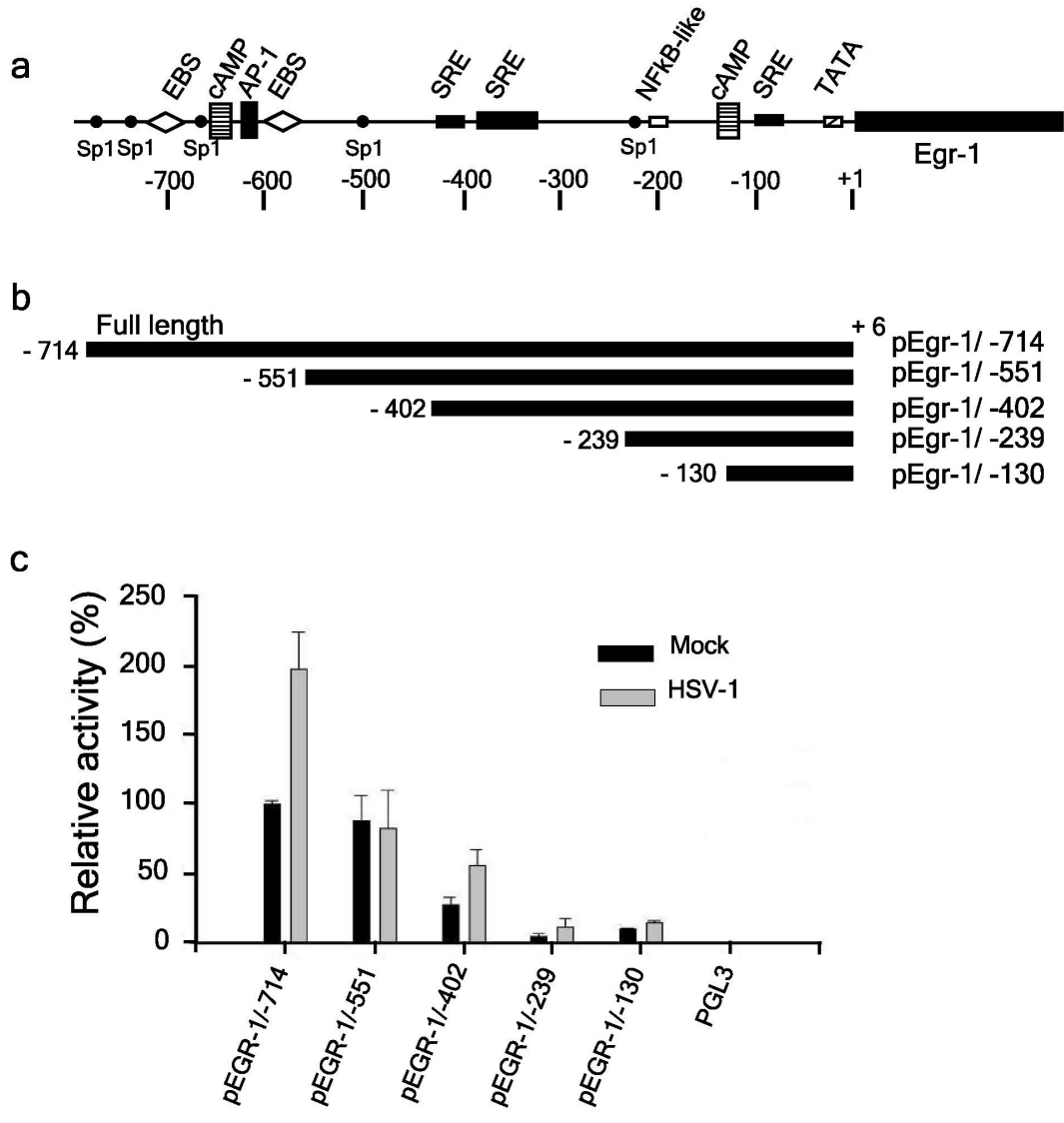
Supplemental Figures (1 to 3)

Supplemental Figure 1

0 2 4 12 36 48 h p.i.

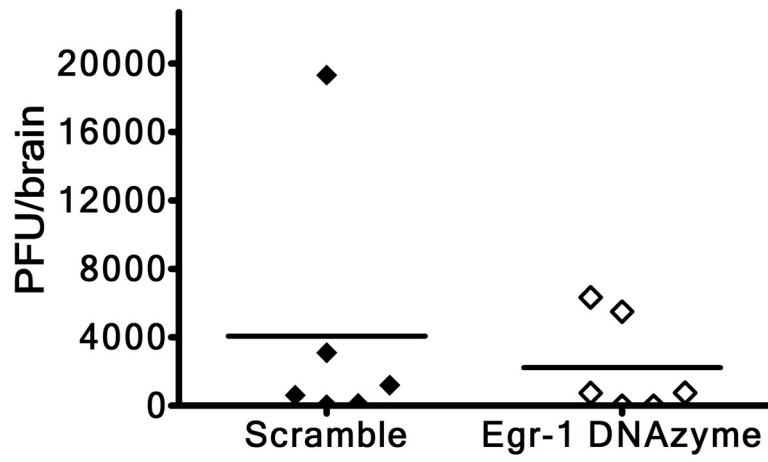


Supplemental Figure 2

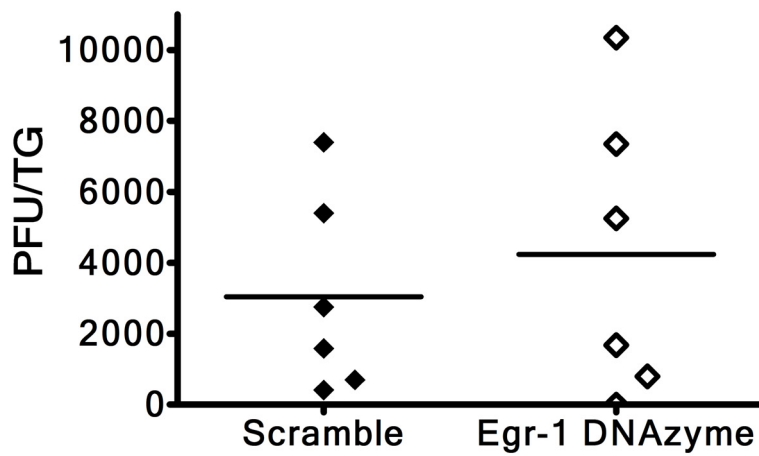


Supplemental Figure 3

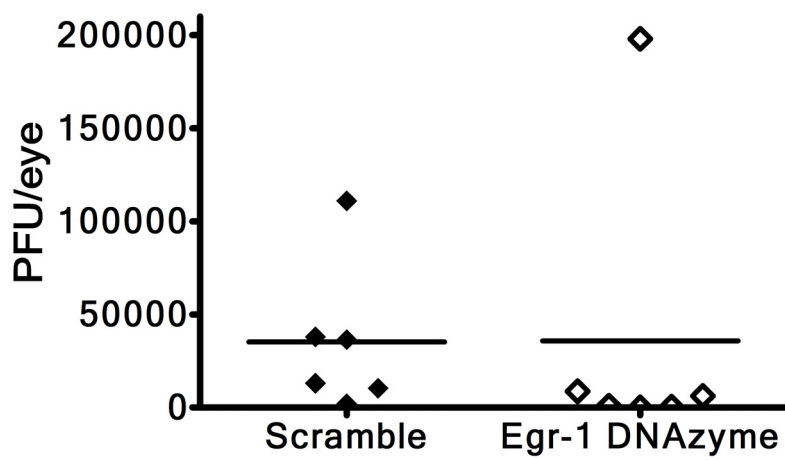
a



b



c



Supplemental References

S1. Chen, C.C., Shieh, B., Jin, Y.T., Liao, Y.E., Huang, C.H., Liou, J.T., Wu, L.W., Huang, W., Young, K.C., Lai, M.D., et al. 2001. Microarray profiling of gene expression patterns in bladder tumor cells treated with genistein. *J. Biomed. Sci.* **8**:214-222.

S2. Chen, J.J., Wu, R., Yang, P.C., Huang, J.Y., Sher, Y.P., Han, M.H., Kao, W.C., Lee, P.J., Chiu, T.F., Chang, F., et al. 1998. Profiling expression patterns and isolating differentially expressed genes by cDNA microarray system with colorimetry detection. *Genomics* **51**:313-324.