Antibodies	
Anti-human CD8, depleting (cM-T807)	Nonhuman Primate Reagent Resource
Control human IgG	Nonhuman Primate Reagent Resource
Anti-monkey CD3	Invitrogen, Carlsbad, CA
Anti-human CD8	Dako, Carpinteria, CA
Anti-human CD28	BD Biosciences, San Jose, CA
Anti-human CD197	BD Biosciences
Anti-human Granzyme B	Invitrogen
Anti-human IFN-γ	BD Biosciences
Anti-human TNF-α	BD Biosciences
Anti-human CD163	Novocastra, Newcastle Upon Tyne, UK
Anti-human HLA-DR	Zymed, Camarillo, CA
Oligonucleotides	
Rhesus CD163-forward	GCCCAGAAGGAACTTGTAGC
Rhesus CD163-reverse	CACCAAGCGAATTTCTGTGT
Rhesus CD163-probe	TGAGCAGACTACTCCAACATCCCTGC
Rhesus HLA-DRalpha-forward	TCTCAAGCACTGGGAGTTTG
Rhesus HLA-DRalpha-reverse	CACCCTTGATGATGAAGACG
Rhesus HLA-DRalpha-probe	CCCAGGGCACACACCACGTT
Rhesus GAPDH-forward	GCACCACCAACTGCTTAGCAC
Rhesus GAPDH-reverse	TCTTCTGGGTGGCAGTGATG
Rhesus GAPDH-probe	TCGTGGAAGGACTCATGACCACAGTCC
Rhesus TBP-forward	AAAGACCATTGCACTTCGTG
Rhesus TBP-reverse	GGTTCGTGGCTCTCTTATCC
Rhesus TBP-probe	TCCCAAGCGGTTTGCTGCAG

## Supplemental Table 1. Antibodies and oligonucleotides used for intra-CSF

## treatment, flow cytometry, immunohistochemistry, and real-time PCR. Antibodies

for flow cytometry were directly conjugated to fluorochromes. Probes for real time PCR

were labeled at the 5'-end with a reporting dye and at the 3'-end with a quencher.



**Supplemental Figure 1. Course of chronic SIV infection for experimental and control animals.** (A) Plasma viral load and (B) CD4 cell count were measured over time before the onset of experimental procedures.



**Supplemental Figure 2.** Flow cytometry analysis for memory and effector function molecules on cells isolated from the brains of representative (of three) chronically SIV infected monkeys. (A) Surface staining for CD197 (X-axis) and CD28 (Y-axis) on gated CD3+CD8+ cells classify memory populations. (B) Intracellular staining for Granzyme B (X-axis) and IFN- $\gamma$  (Y-axis) examine effector function phenotype on stimulated, gated CD3+CD8+ cells.