

Figure S1

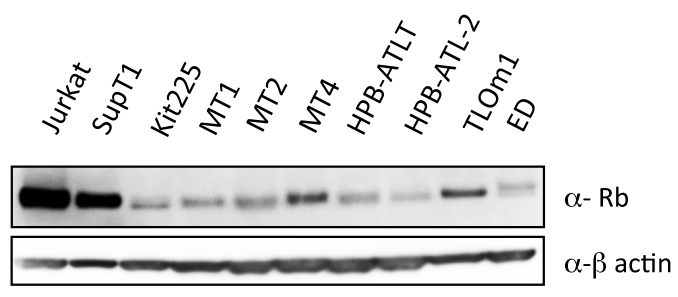


Figure S2

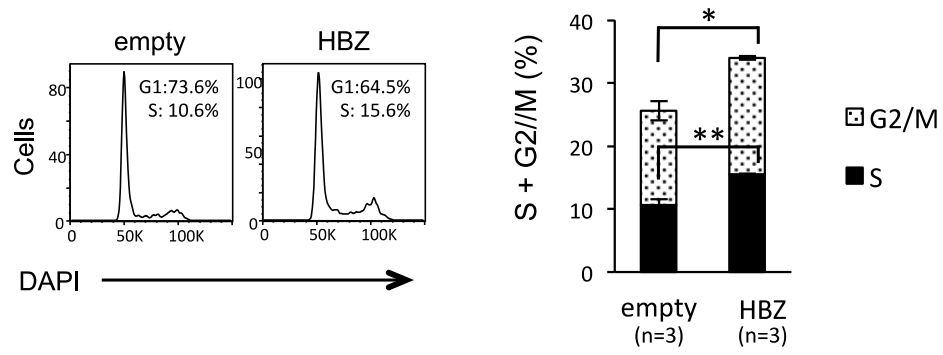
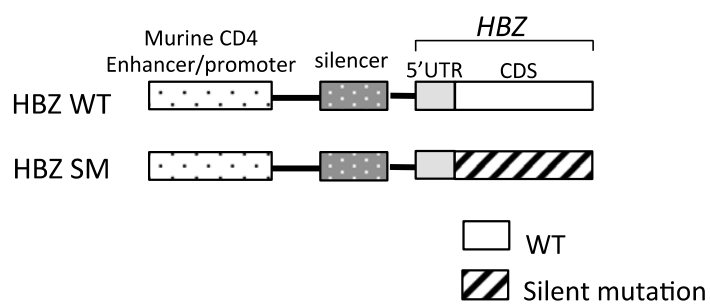


Figure S3

a



b

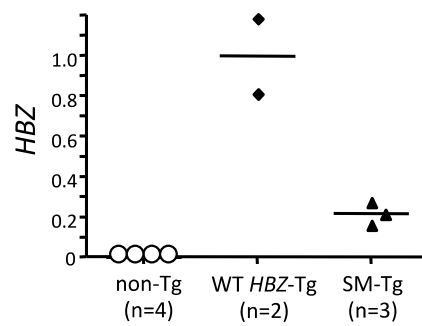


Figure S4

SUPPLEMENTARY FIGURE LEGENDS

Supplementary Figure S1. The N-terminal 22 amino acids of HBZ protein are responsible for its interaction with Rb. Interaction between Rb and wild type HBZ or its deletion mutants was analyzed by co-IP. Schematic diagrams of the HBZ mutants are shown at the bottom. Representative of three independent experiments are shown.

Supplementary Figure S2. Endogenous expression of Rb in human T-cell lines was detected by immunoblotting. Jurkat, SupT1, and Kit225 are HTLV-1 uninfected cells. MT1, MT2, MT4, HPB-ATL-T, HPB-ATL-2, TL-Om1, and ED are HTLV-1-infected T-cell lines.

Supplementary Figure S3. The G1/S transition was accelerated in unsynchronized primary CD4⁺ T cells transduced with HBZ. Primary CD4⁺ T cells were isolated from wild type C57BL/6 mice and transduced with a retroviral vector encoding HBZ or its mutants. The cell cycle distribution of transduced cells was monitored by DAPI staining without synchronization of the cell cycle. Three independent experiments were performed in triplicate, and the representative data are shown.

Supplementary Figure S4. HBZ SM mutant transgenic (SM-Tg) mice were generated. (a) Schemata of the transgenes in HBZ-Tg (wild type: WT) and SM-Tg mice. UTR: untranslated region. (b) Expression levels of the *HBZ* gene and *HBZ SM* gene in CD4⁺ T cells of HBZ-Tg (n=2), SM-Tg (n=3), and non-Tg (n=4) mice. CD4⁺ T cells were

isolated from spleens and subjected to qPCR. The 5'UTR region was amplified for quantification of each transgene expression level using the primers listed in Supplementary Table S1.

Supplementary Table S1. Primers for quantitative RT-PCR

gene		sequence
<i>Ccna2</i>	F	5'-GTGGTGATTCAAAACTGCCA-3'
	R	5'-AGAGTGTGAAGATGCCCTGG-3'
<i>Cdc6</i>	F	5'-AAACAGGCAGTTTTTCCAGTCC-3'
	R	5'-TGTATAAGACTGTTCAAGCAAG-3'
<i>Pcna</i>	F	5'-ATCATTACATTAAGGGCTGAAG-3'
	R	5'-TTATTACACAGCTGTACTCCTG -3'
<i>Dhfr</i>	F	5'-TGGCAAGAACGGAGACCTAC-3'
	R	5'-TCTCAGGAATGGAGAACCAG-3'
<i>TAp73</i>	F	5'-TCGAGCACCTGTGGAGTTC-3'
	R	5'-ACTGCTGAGCAAATTGAACTG-3'
<i>Arf</i>	F	5'-TTCTTGGTGAAGTTCGTGCGATCC-3'
	R	5'-CGTGAACGTTGCCCATCATCATCA-3'
<i>Noxa</i>	F	5'-CCACCTGAGTTCGCAGCTCAA-3'
	R	5'-GTTGAGCACACTCGTCCTTCAA-3'
<i>Perp</i>	F	5'-TGGCTGCAGTCTAGCAACC-3'
	R	5'-TGGCTGCAGCTGCTCGTC-3'
<i>Bax</i>	F	5'-TGAACAGATCATGAAGACAGG-3'
	R	5'-TGTCCAGTTCATCTCCAATTC-3'
<i>Cdk2</i>	F	5'-AACTTCCAAAAGGTGGAGAAG-3'
	R	5'-TCTCTCGGATGGCAGTACTG-3'
<i>c-myc</i>	F	5'-TACCCGCTCAACGACAGC-3'
	R	5'-TGTCTCCTCATGCAGCACTAG-3'
<i>HBZ 5'UTR</i>	F	5'-AGTTGAGCAAGCAGGGTCAGGCAA-3'
	R	5'-CCACGCCGGTTGAGTCGC-3'