

Supplementary materials and methods

Construction of vectors and purification of recombinant proteins

Full-length mouse *Pdx-1* and *Pdx-1-VP16* open reading frames were amplified by PCR, respectively, from pGEM-T-Pdx-1 and pTTR-pdx1-VP16-Elastase-GFP which contains the VP16 transactivation domain of Herpes simplex virus I fused to the C-terminus of mouse *Pdx-1* (a generous gift from M. Horb). PCR was carried out using : forward Pdx-1 primer with *NdeI* site 5'-GCCACGCATATGAACAGTGAGGAG-3' or *BamHI* site 5'-GAGCACGGATCCTAACAGTGAGGAG-3' ; reverse Pdx-1 primer 5'-GCACGAAGCTTTTCAACCCTCAGAC-3' or Pdx-1-VP16 primer 5'-GACCGCAAGCTTCAAACATCATCAA-3' with *HindIII* sites. pET28b-TAT-v2-1 expression plasmid containing the HIV TAT protein PTD (named TAT in this study) was kindly provided by S. Dowdy. PCR products were inserted into *NdeI-HindIII* sites of pET28b-TAT-v2-1 to construct Pdx-1 and Pdx-1-VP16, and into the *BamHI-HindIII* site or the blunted *Sall-HindIII* site to construct TAT-Pdx-1 and TAT-Pdx-1-VP16, respectively.

PTD_{Pdx-1}-eGFP was constructed by fusing the PTD of Pdx1 (RHIKIWFQNRRMKWKK) to eGFP as follows : PTD_{Pdx-1} was amplified by PCR on pTTR-Pdx-1-VP16-Elastase-GFP with forward primer featuring *NdeI* site 5'-CCACGCATATGAGACACATCA-3' and reverse primer featuring *BamHI* site 5'-ATATGGATCCTTTTCCACTTCA-3' ; eGFP was amplified from pEGFP1 (Clontech, France) using forward primer with *BamHI* site 5'-TGATGGATCCAGGAGTGAGCAAG-3' and reverse primer with *HindIII* site 5'-CGTGAAGCTTTCACCTTGACAGCTC-3'. PTD_{Pdx-1} and eGFP products were inserted into *NdeI-BamHI* and *BamHI-HindIII* sites of pET28b-TAT-v2-1 to yield PTD_{Pdx-1}-eGFP.

TAT-eGFP was constructed by amplification of eGFP from pEGFP1 using forward primer with *BamHI* site 5'-TGATGGATCCGTGAGCAAG-3' and reverse primer with *HindIII* site 5'-CGTGAAGCTTTCACCTTGACAGCTC-3' and insertion into blunted *BamHI-HindIII* sites of pET28b-TAT-v2-1.

eGFP was amplified from pEGFP1 with forward primer containing *NdeI* site 5'-CGATCATATGGTGAGCAAGG-3' and reverse primer with *XhoI* site 5'-CATTCTCGAGCTTGACAGCTC-3' and inserted into *NdeI-XhoI* sites of pET 21a (+) expression vector (Novagen, WI, USA).