Supporting Information

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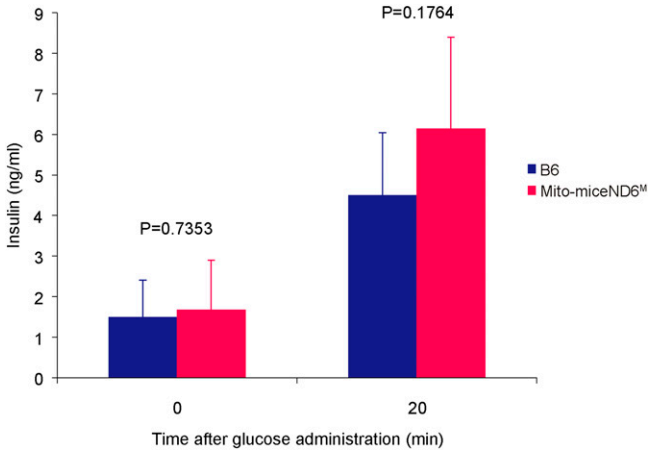

Fig. S1. Estimation of blood insulin levels in aged mito-miceND6^{M} and age-matched B6 mice after glucose administration. Data are represented as mean values with SD (n = 5).

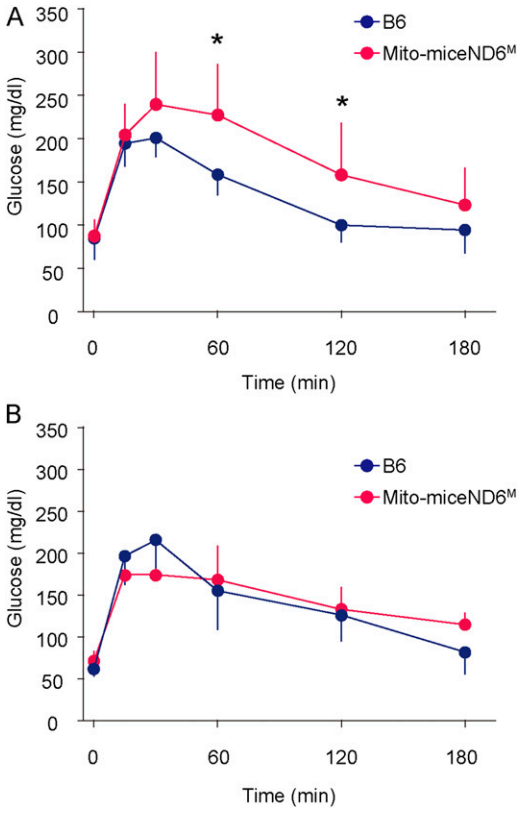

Fig. S2. Estimation of blood glucose levels in aged mito-miceND6^{M} and age-matched B6 mice before (*A*) and after (*B*) NAC administration for 1 wk. To examine the effect of NAC administration on blood glucose levels, the mice were given 10 mg/mL NAC in drinking water ad libitum. Data are represented as mean values with SD (n = 5). *$P < 0.05$ compared with control B6 mice.

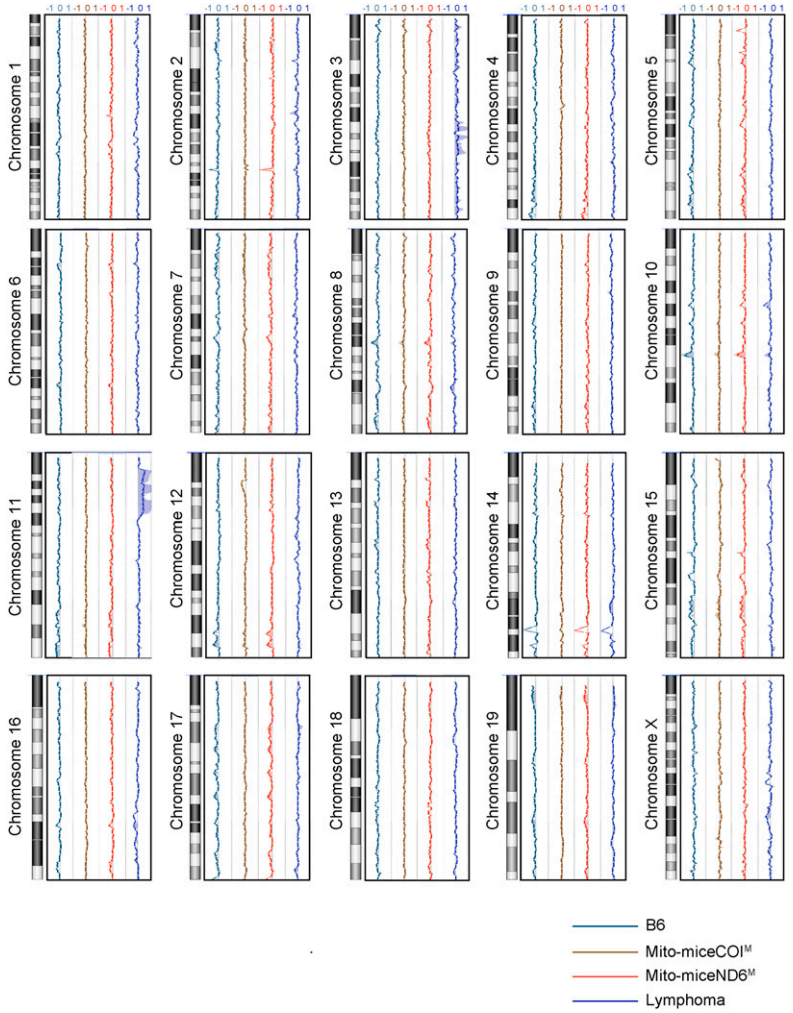

Fig. S3. Array CGH analysis of nuclear DNAs from the spleens of mito-miceCOI^{M} and mito-miceND6^{M}, and from a spleen with B-lymphoma from a mito-mouseND6^{M}, relative to that in the spleen of a B6 strain mouse. The *x* axis shows normalized $\log_2$ ratios of fluorescence signals in mito-miceCOI^{M}, mito-miceND6^{M}, and the B-lymphoma mito-mouseND6^{M}, relative to those in the B6 strain mouse. The *y* axis shows chromosome position from centromere to telomere. Copy-number changes of chromosomes 3 and 11 were observed only in B lymphoma.

Table S1. MEF and MEF-derived cell lines generated in this study

Mouse strain	MEF line, normal	3T3 line, immortal	FS line, tumor
B6	MEFB6-I	3T3B6-I	–
	MEFB6-II	3T3B6-II	FSB6-II
	MEFB6-III	3T3B6-III	FSB6-III
Mito-miceND6^{M}	MEFND6^{M}-I	3T3ND6^{M}-I	FSND6^{M}-I
	MEFND6^{M}-II	3T3ND6^{M}-II	–
	MEFND6^{M}-III	3T3ND6^{M}-II	FSND6^{M}-III
	MEFND6^{M}-IV	–	–

After establishing six nontransformed 3T3 lines (3T3B6-I, -II, -III; 3T3ND6^{M}-I, -II, -III), we cultured them for 1 mo to obtain sufficient numbers of cells for inoculation into B6 mice. We then tested their tumorigenicity. Two 3T3 lines, 3T3B6-III and 3T3ND6^{M}-I, formed tumors, but the remaining four lines did not. To allow further spontaneous transformation, we cultivated these four lines for an additional 3 mo, and we found that two of them, 3T3B6-II and 3T3ND6^{M}-III, had acquired tumorigenicity. Four fibrosarcoma lines (FSB6-II and -III; FSND6^{M}-I and -III) were isolated from the tumor masses formed by inoculation of nontransformed 3T3B6-II and -III and 3T3ND6^{M}-I and -III, respectively.