**Supplementary Figure S1, detection of CML-modified proteins on diabetic retinas and R28 cells.**

CML-modified proteins were also increased on diabetic retina, NC=negative control, N=normal retinas, D=diabetic retinas from SD rats of 1 month diabetes induced by STZ (upper left) western blots also revealed the increase of CML-modified proteins on diabetic retinas (upper right). The CML-modified proteins were detected on R28 treated by 0 or 2 mM glyoxal after 9 h incubation (lower left). The time-course study of CML-modified protein in R28 by Western blots, 2 mM glyoxal can effectively increase the accumulation of CML-modified proteins (with a main band between 50–75 KD) while no detectable bands were found on untreated sample (lower right).