Supplemental Figure S1\_Maruyama et al.



## Supplemental Figure S1. Z-probes used in this study.

Z-probe\* lacks a  $(Gly_4-Ser)_3$  flexible linker region and its expression plasmid was stably transfected into 293-T-REx-3xFLAG-human Nrf2 cells. A flexible linker was inserted into Z-probe. Both N41A and Y45A mutation were introduced into Z $\alpha$  domain of Z-probe, and designed Zmut-probe. Z-probe and Zmut-probe were transiently transfected into HeLa or SW13 cells for analyses. Amino acid (aa) numbers correspond to the residue number in each protein. Supplemental Figure S2\_Maruyama et al.



Supplemental Figure S2. Effect of BRG1 knockdown in HeLa cells.

HeLa cells were transfected with control siRNA (Control) or BRG1specific siRNA (BRG1), and then cells were exposed to 100  $\mu$ M DEM for 3 hours. (A) Whole cell lysates were separated on SDS-PAGE and protein expressions were analyzed by immunoblot using specific antibodies indicated on the left of panels. (B) The *HO-1* and *TXNRD1* gene expression was analyzed by realtime PCR using specific primer sets. The value of lane 1 was set as 1. (C) ChIP assay was performed using anti-Nrf2 antibody (black bars). Normal rabbit IgG was used as a negative control (gray bars). Fold Nrf2 binding was measured by realtime PCR using specific primer set for *HO-1* E2 enhancer region (*HO-1*-E2). Lane numbers indicated below bars correspond to the sample numbers of (A). DEM-induced Nrf2 expression was attenuated in BRG1 knockdown cells compared to control cells (A). The *HO-1* gene expression was down-regulated in BRG1 knockdown cells (B). The Nrf2 binding to *HO-1* E2 enhancer was induced by DEM in control siRNA-transfected cells, but not in BRG1 knockdown cells. The value of lane 1 was set as 1 and relative bindings were expressed as means ± SEM of three independent assays.\*: P<0.05, \*\*: P<0.01 (two-tailed unpaired Student's *t*-test). ns: no significant difference.