Supplementary Figure 1: HT-29 cells were transiently transfected with DRA promoter construct (p-1183/+114) along with the mammalian expression vector for β-galactosidase (pCMV-β-gal). 6h or 12h post-transfection, HT-29 cells were treated with different doses of TNF ranging from 5-100 ng/mL for 6h (**A**) or 12h (**B**). Promoter activity was measured by luciferase assays. Values were normalized to β-galactosidase activity to correct for transfection efficiency. Results represent mean ± SEM of 3 separate experiments performed in triplicate and expressed as % of control comparing transfected cells treated with TNF to untreated cells (control). **p<0.001 compared with control.

Supplementary Figure 2:

Caco-2 cells were transfected with scrambled or IκB/α specific small interfering RNA (siRNA) for 48h. Scrambled or IκB/α treated Caco-2 cells were stained for p65 (green), DAPI (blue) and visualized by confocal microscopy. XY planar images and orthogonal XZ images Orthognal *xz* images were obtained with a Zeiss LSM 710 confocal microscope.

Supplementary Figure 3:

Caco-2 cells were transiently transfected with DRA promoter construct with and without p65 or p50 subunit expression vector. 24h post-transfection. Nuclear lysates were prepared, run on 7.5% SDS-PAGE, transblotted, and Western blotting was performed utilizing anti-p65 or p50 subunit antibody. Representative blot of 3 different experiments is shown

Supplementary Figure 4:

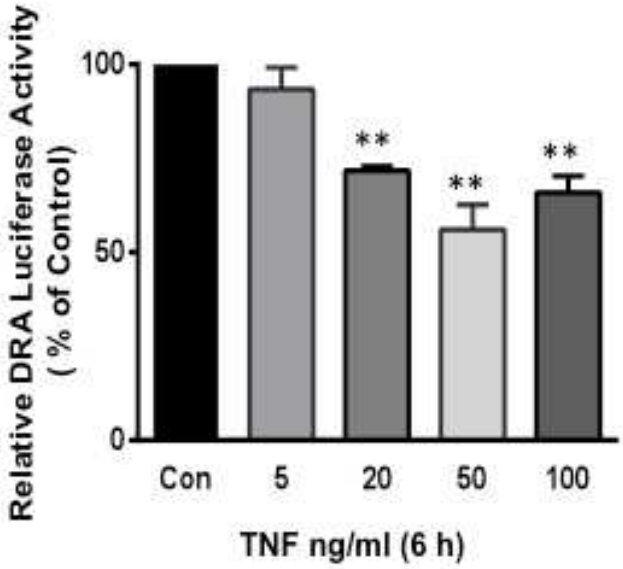
Caco-2 cells were transiently transfected with DRA promoter construct with (**A**) Different doses of p65 (0.2-1 μg/well) or (**B**) p50 (0.2-1 μg/well) subunit expression vector along with mammalian expression vector for β-galactosidase (pCMV-β-gal). 24h post-transfection, promoter activity was measured by luciferase assays. Values were normalized to β-galactosidase activity. (**C**) T-84 cells were transiently transfected with DRA promoter construct with and without p65 or p50 subunit expression vector or together along with the mammalian

expression vector for β-galactosidase (pCMV-β-gal). 24h post-transfection, promoter activity was measured by luciferase assays. Values were normalized to β-galactosidase activity. Results represent mean ± SEM of 3 separate experiments performed in triplicate and expressed as % of control comparing p65 or vehicle transfected (control). **p<0.001 compared with control

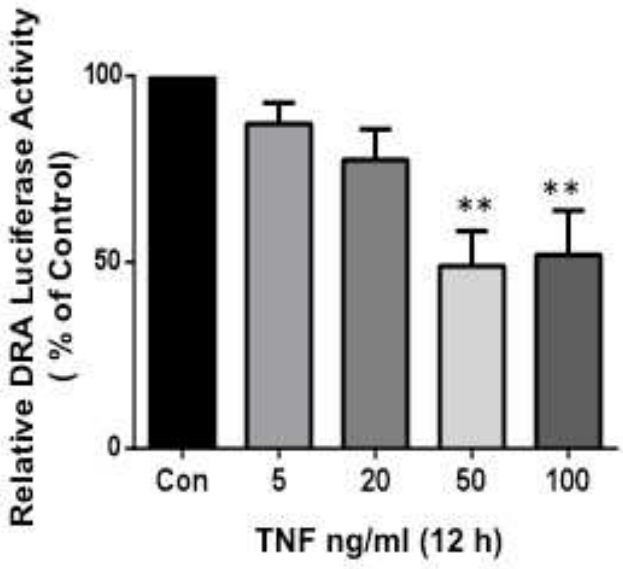
Supplementary Figure 5:

Caco-2 cells grown in 3D culture system were treated with TNF (50 ng/ml, 24 h). Total RNA was extracted and quantitative real-time RT-PCR was performed utilizing SYBR green fluorescent dye. Data represent the relative expression of NHE2 **(A)** and ZO-1 **(B)** normalized to the respective GAPDH mRNA (internal control) levels. Results are expressed as fold-change in mRNA levels in treated cells compared with control. Data represent mean ± SEM of 3 separate experiments. ** p<0.001 compared with control.

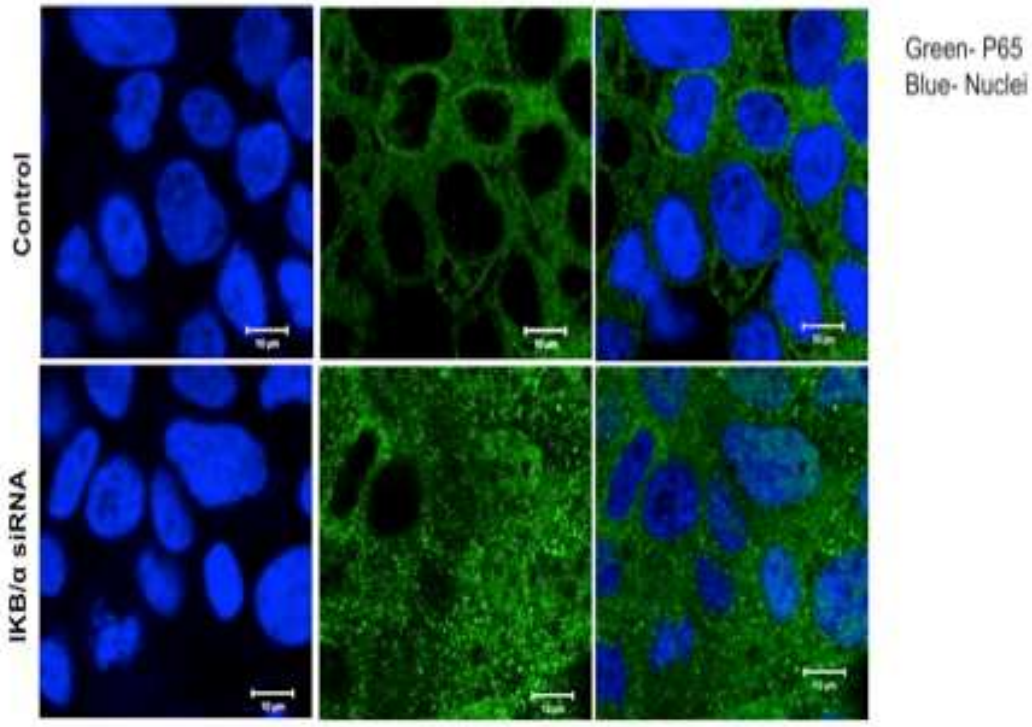
Supplementary Figure: 1A



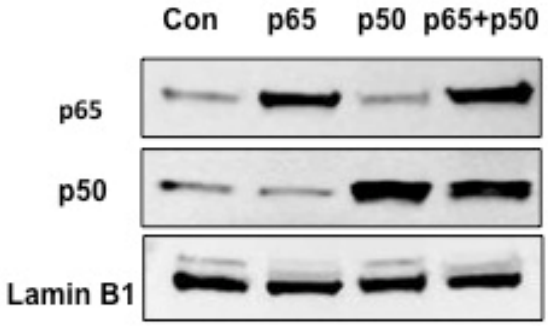
Supplementary Figure: 1B



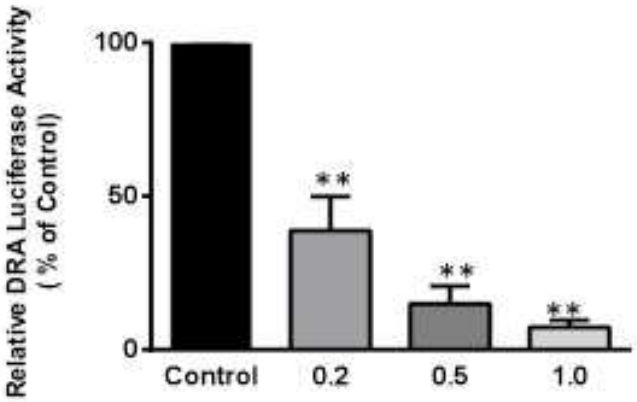
Supplementary Figure : 2



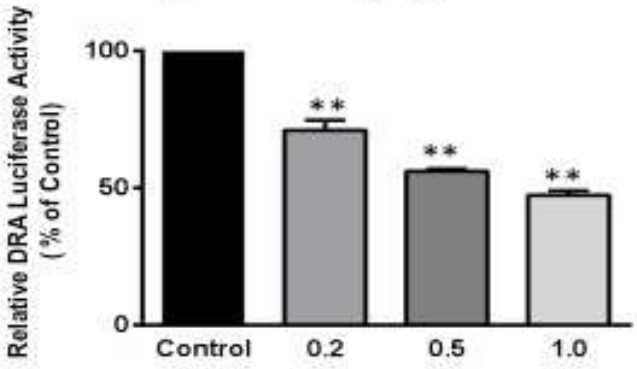
Supplementary Figure: 3



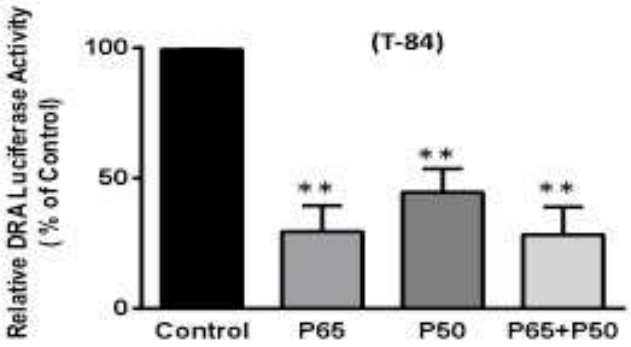
Supplementary Figure: 4A



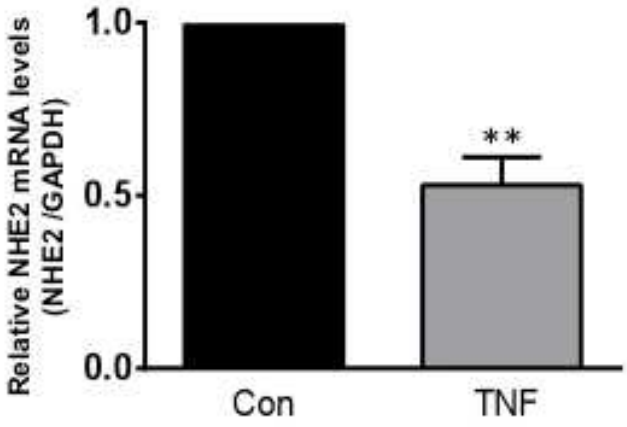
Supplementary Figure: 4B



Supplementary Figure: 4C



Supplementary Figure: 5A



Supplementary Figure: 5B