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Supplemental Material to:

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Identification of cetrimonium bromide and irinotecan as compounds with synthetic lethality against NDGRG1 deficient prostate cancer cells

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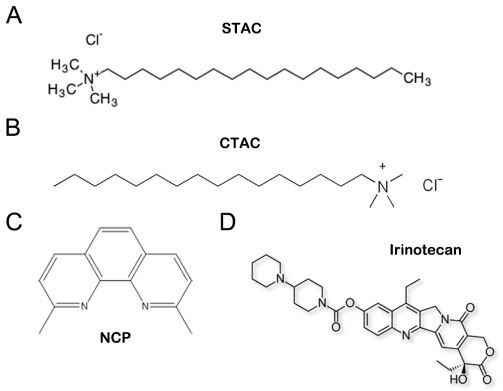

Figure S1. Structure formulas of (A) stearyltrimethylammonium chloride (STAC), (B) cetrimonium chloride (CTAC), (C) neocuproine (NCP) and (D) irinotecan.

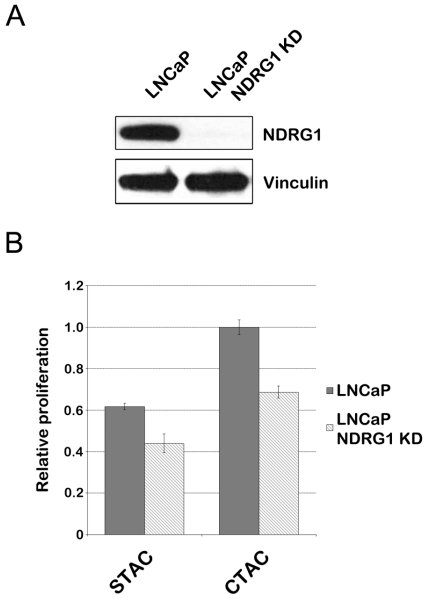

Figure S2. Stearyltrimethylammonium chloride (STAC) and cetrimonium chloride (CTAC) selectively target NDRG1 deficient LNCaP cells. A, Western blot for NDRG1 performed with LNCaP cell lysates that had NDRG1 stably knocked down by transduction with shRNA (LNCaP NDRG1 KD). B, MTS assays performed after 48 h treatment of parental LNCaP and LNCaP NDRG1 KD cells with 10 μM of STAC and CTAC.

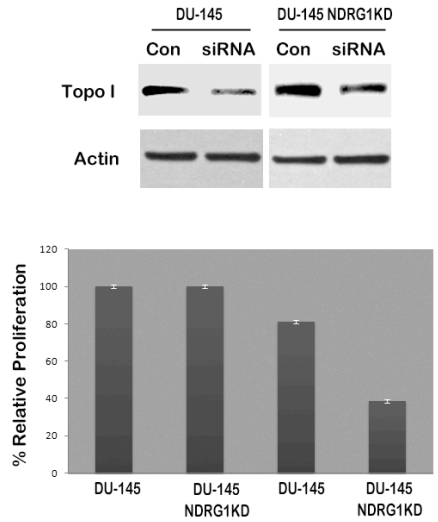

Figure S3. NDRG1 deficient DU-145 cells are sensitive to TOPO I knockdown. DU-145 cells were treated with TOPO I siRNA for 48 h and assessed for proliferation using MTS assay. Upper panel shows a western blot for TOPO I knockdown in DU-145 cells after treatment with siRNA for 48h. Lower panel shows relative proliferation of DU-145 and DU-145 NDRG1KD cells after TOPO I knockdown.

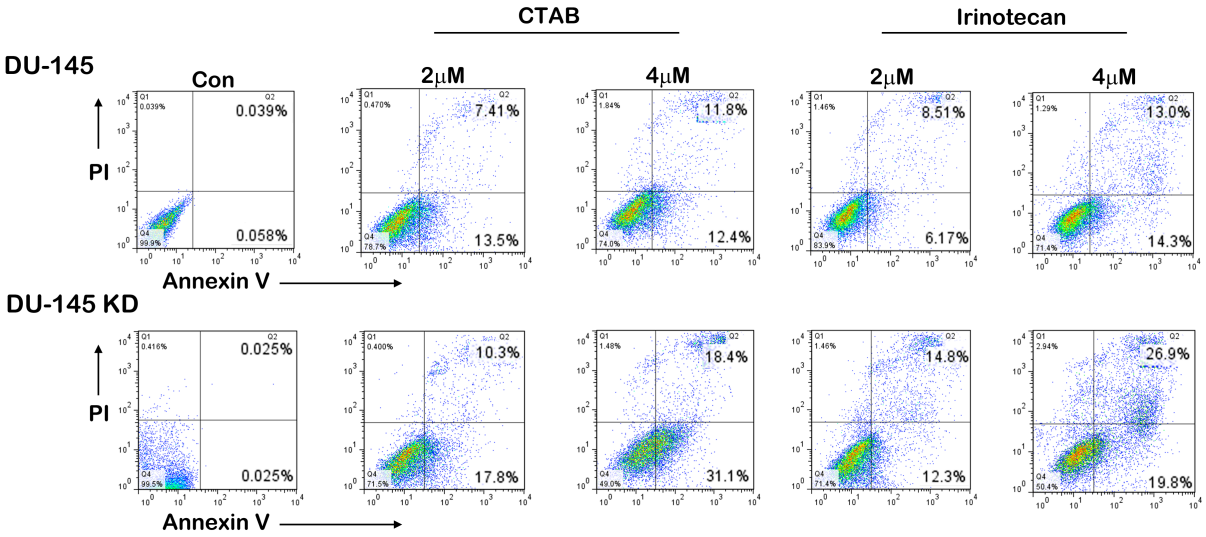

Figure S4. NDRG1 deficient DU-145 cells demonstrate increased apoptosis on treatment with CTAB and irinotecan. Annexin V staining was analyzed by FACS in DU-145 and DU-145 NDRG1KD cells after treatment with indicated concentrations of CTAB and irinotecan. NDRG1KD cells demonstrated increase in early (high AnnexinV staining) and late apoptosis (high Annexin V and PI staining) with both the compounds.