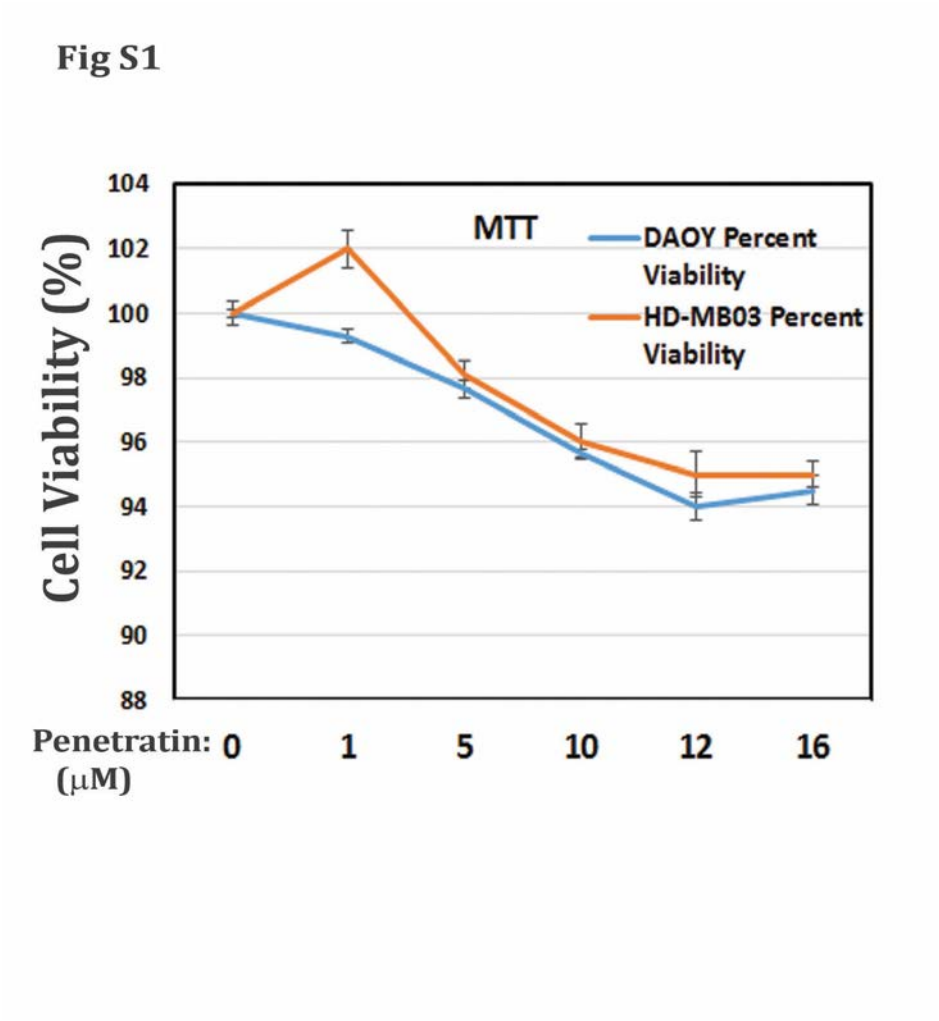

Fig S1: Penetratin has minimal effect on MB cell viability. MB cell line, DAOY and HD-MB03 were treated with penetratin control peptide at different doses and cell viability was measured by MTT assay as described in materials and methods.

Fig S2

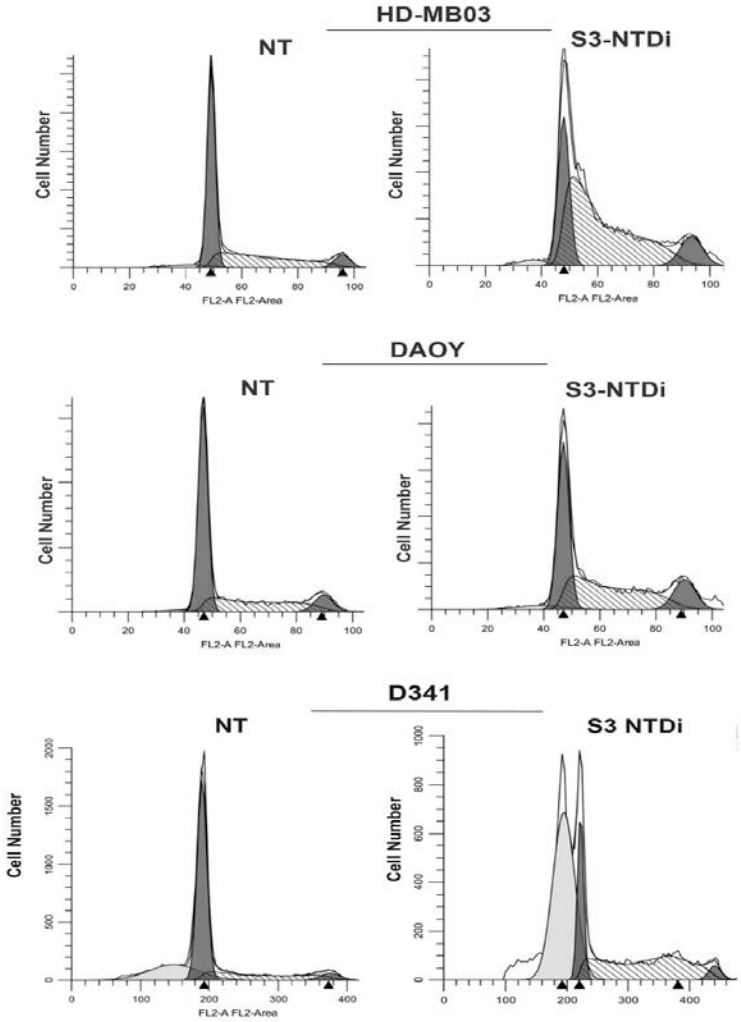

Fig S2: Effect of S3-NTDi (10 μM) on HD-MB03, DAOY and D341 cell cycle as described in Materials and Methods. NT: non-treated control.

Fig S3

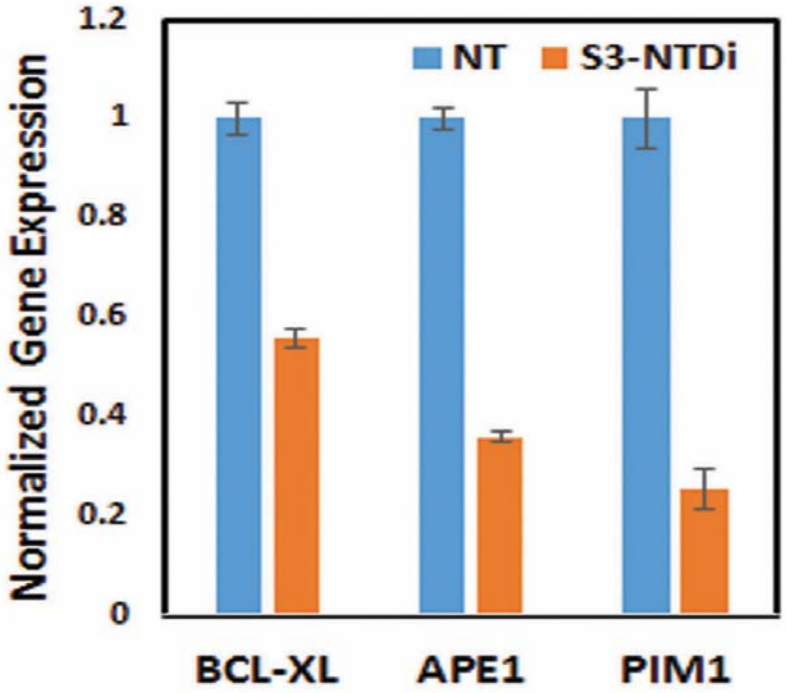

Fig S3: HD-MB03 cells were treated with S3-NTDi (10 μM) for 24h. Cells were stimulated with IL-6/sIL-6α for 20 mins prior to harvest. Total RNA was subjected to qRT-PCR for STAT3 target gene expression as described in Materials and Methods. NT: non-treated control.

Fig S4

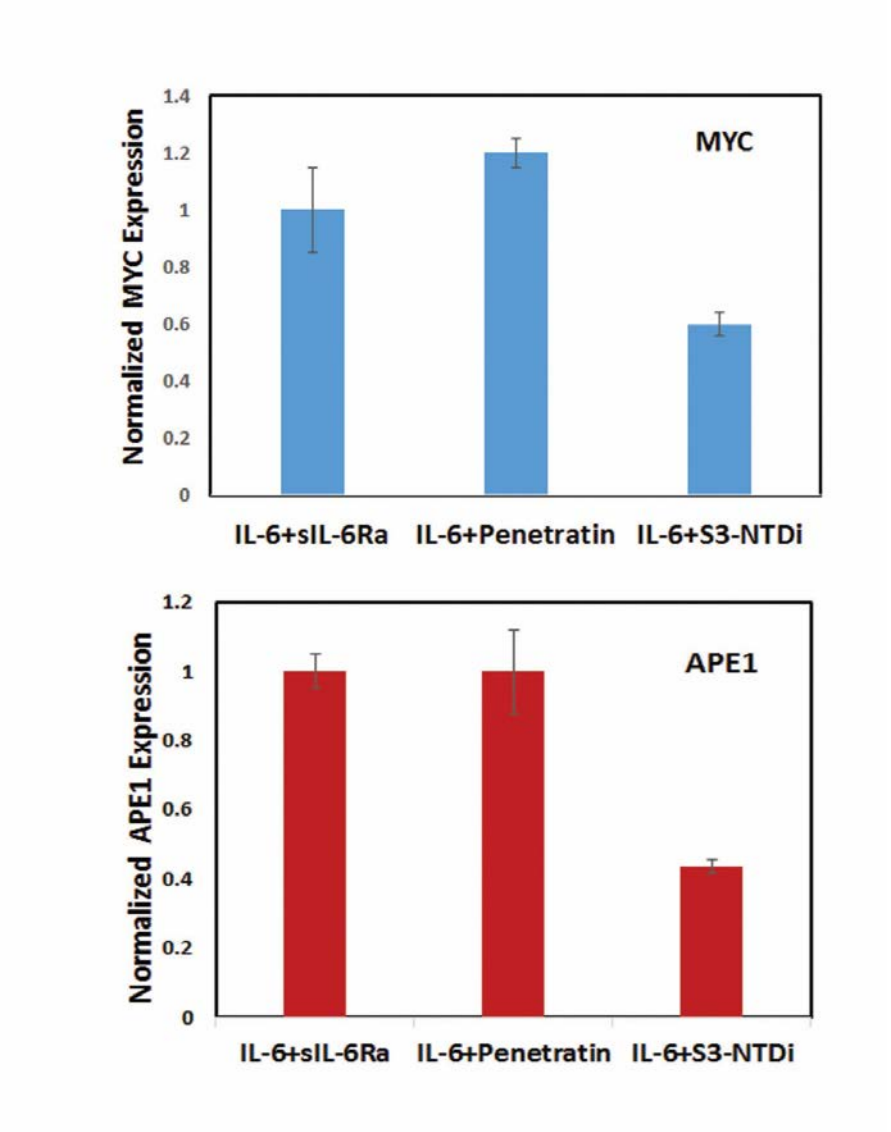

Fig S4: Effect of penetratin on gene expression. HD-MB03 cells were either untreated or treated with penetratin control peptide (10 μM) or S3-NTDi (10μM). Cells were stimulated with IL-6/sIL-6α for 20 mins prior to harvest. Total RNA was subjected to qRT-PCR for MYC and APE1 expression.

Fig S5

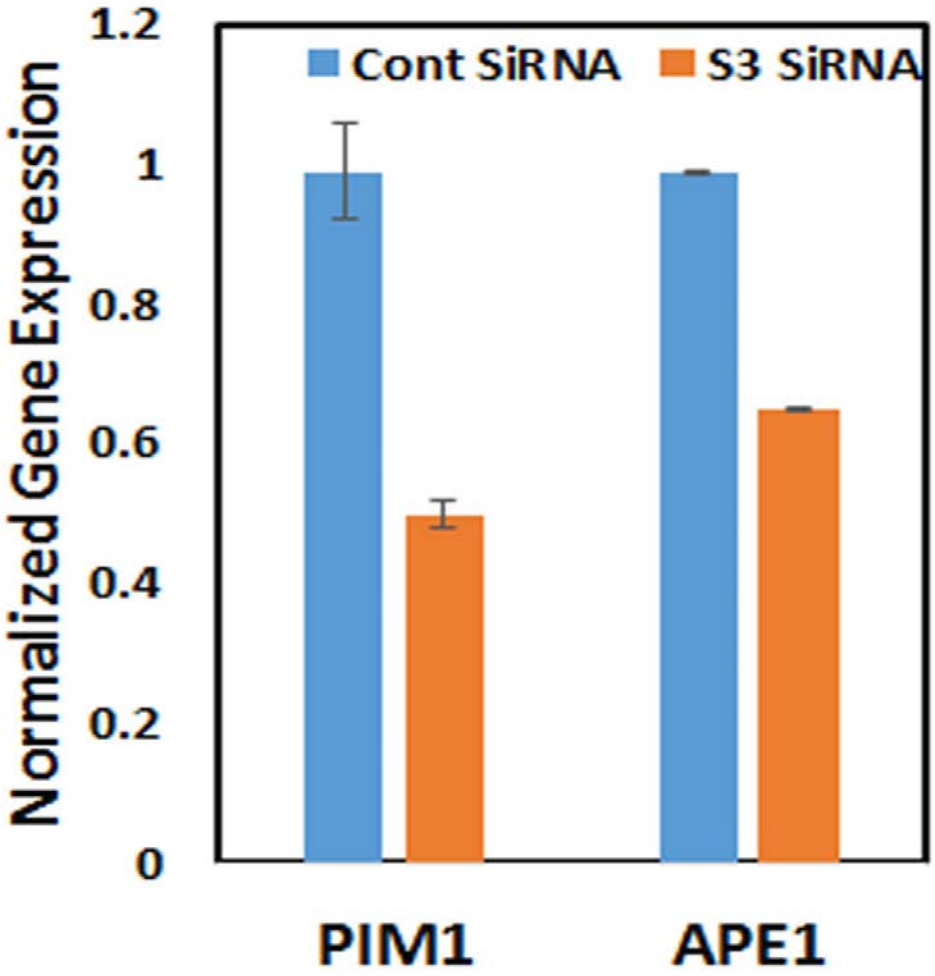

Fig S5: HD-MB03 cells were either treated with control siRNA or S3-siRNA as described in materials and methods. Cells were stimulated with IL-6/sIL-6α for 20 mins prior to harvest. Total RNA was subjected to qRT-PCR for STAT3 regulated gene expression.

Fig S6

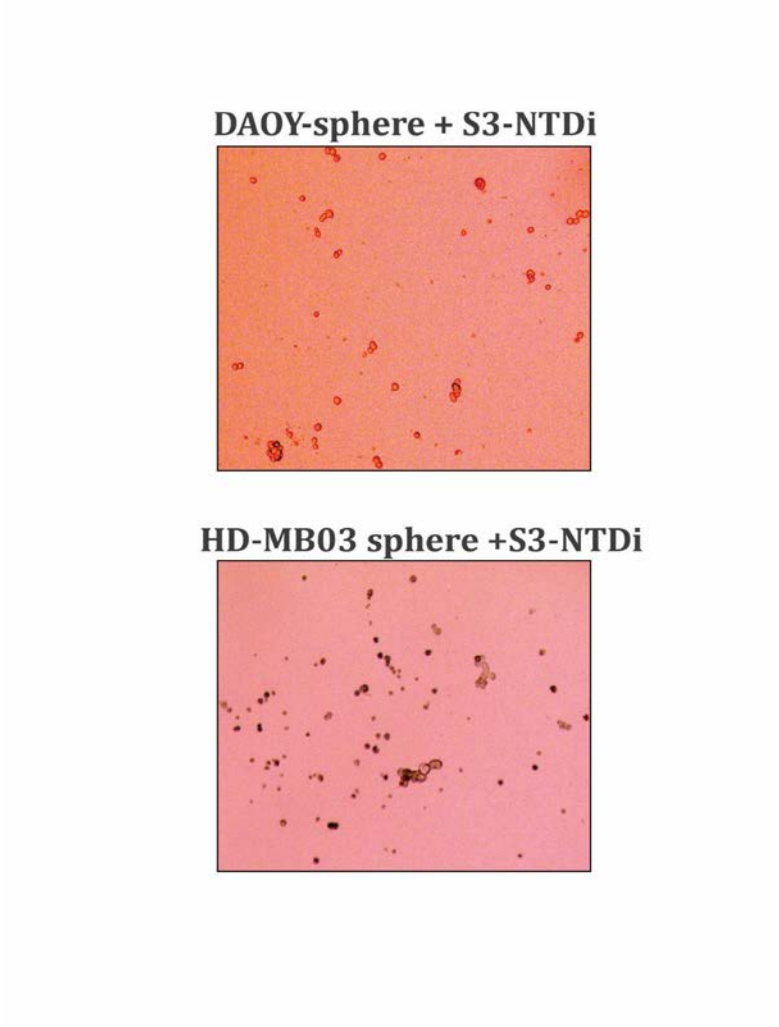

Fig. S6: DAOY and HD-MB03 spheres were treated with S3-NTDi (10 μM) for 24 h and the resulting spheres were imaged as described in Materials and Methods.

Fig S7

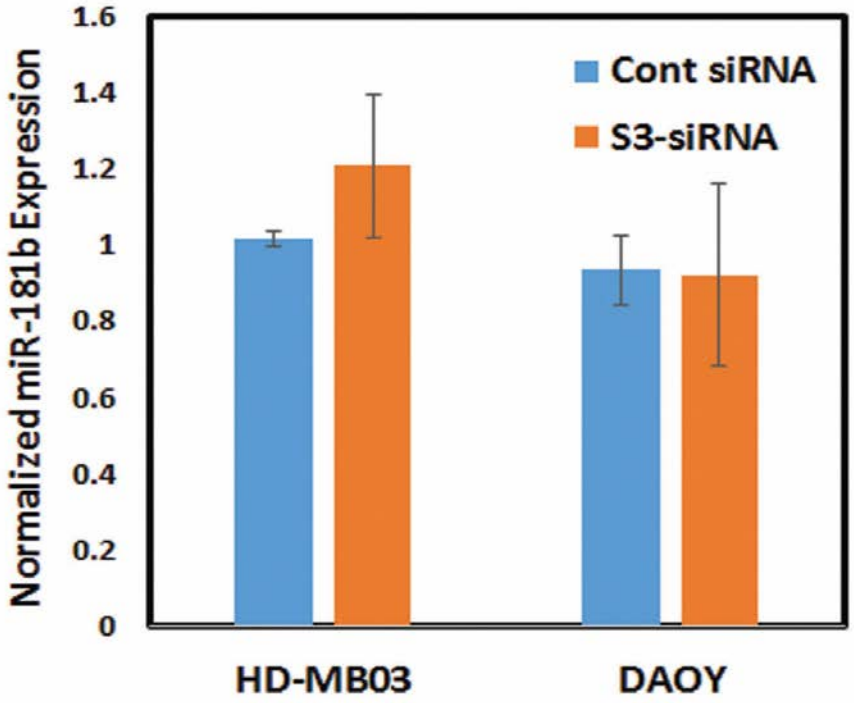

Fig S7: HD-MB03 and DAOY cells were either treated with control siRNA or S3-siRNA as described in materials and methods. Cells were stimulated with IL-6/sIL-6α for 20 mins prior to harvesting miRNAs. miR-181b expression was determined by qRT-PCR.

Fig S8

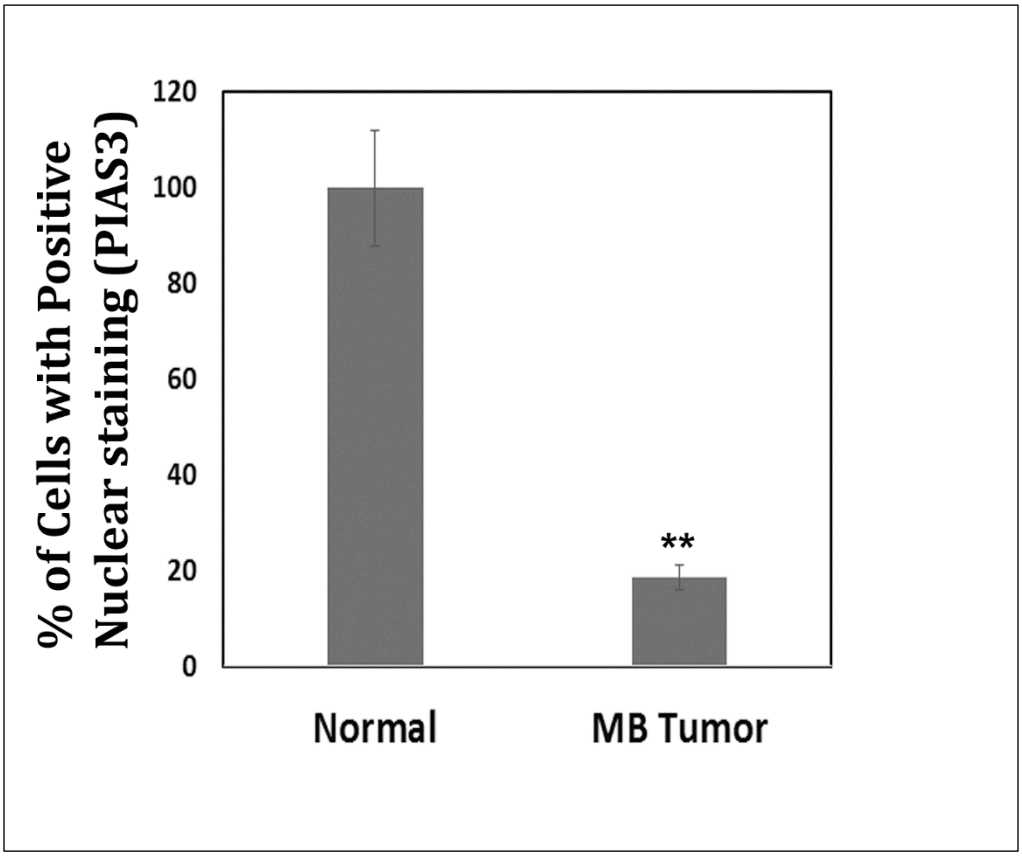

Fig S8: MB TMA were stained with PIAS3 Ab and positive nuclear staining were counted in normal cerebellar tissues and MB tumors using Image J software. Above diagram shows approximately 20-25% of the tumor tissues express PIAS3. * represents p <0.001.

Fig S9

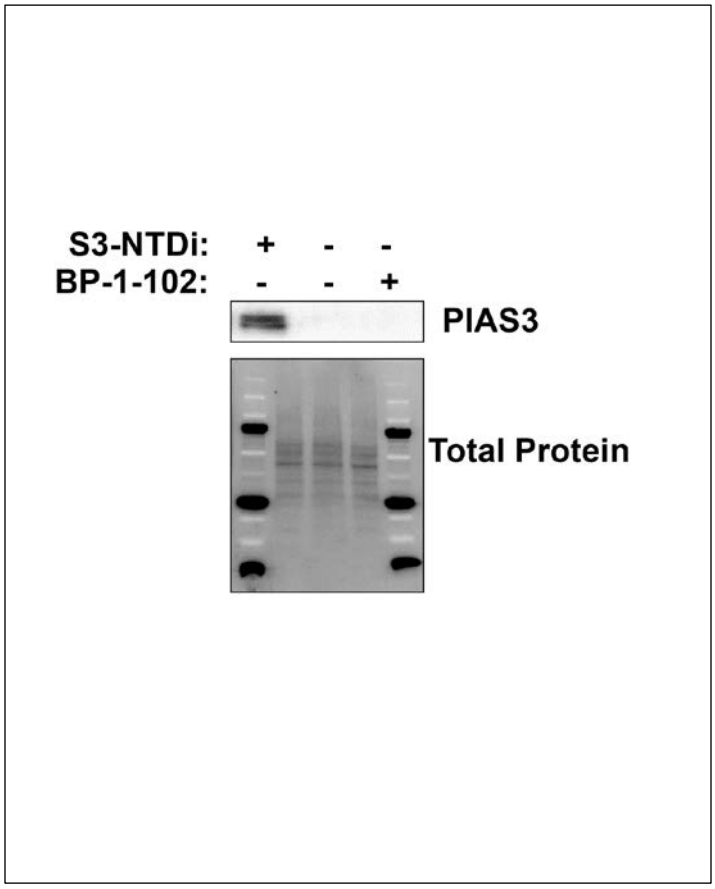

Fig S9: HD-MB03 cells were treated either with 10μM S3-NTDi (lane 1) or left untreated (lane 2) or with STAT3 inhibitor 2μM BP-1-102 (lane 3) for 36 h. IL-6 stimulated WCE were fractionated in SDS-PAGE and Western immunoblot was performed using PIAS3 Ab. Bottom gel image shows equivalent total protein loading in three lanes.

Fig S10

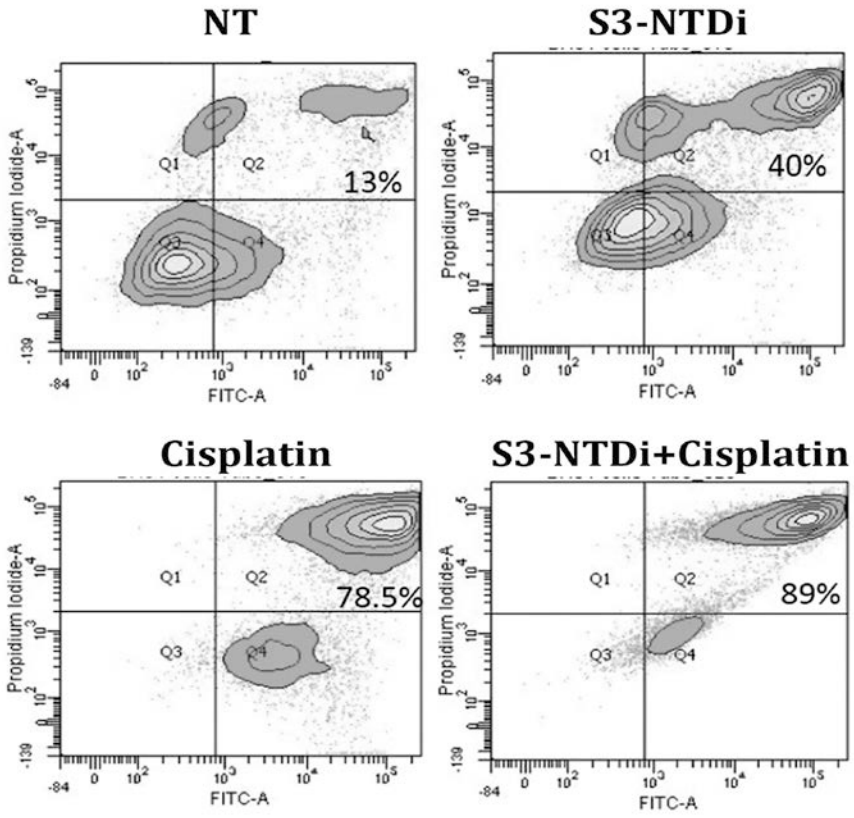

Fig S10: Effect of combination of S3-NTDi and cisplatin on MB cell apoptosis. Representative scatter diagram for the apoptotic cell analyses in DAOY following treatment of either S3-NTDi (12μM) or cisplatin (2.5μM) alone or in combination for 24h.

Fig S11

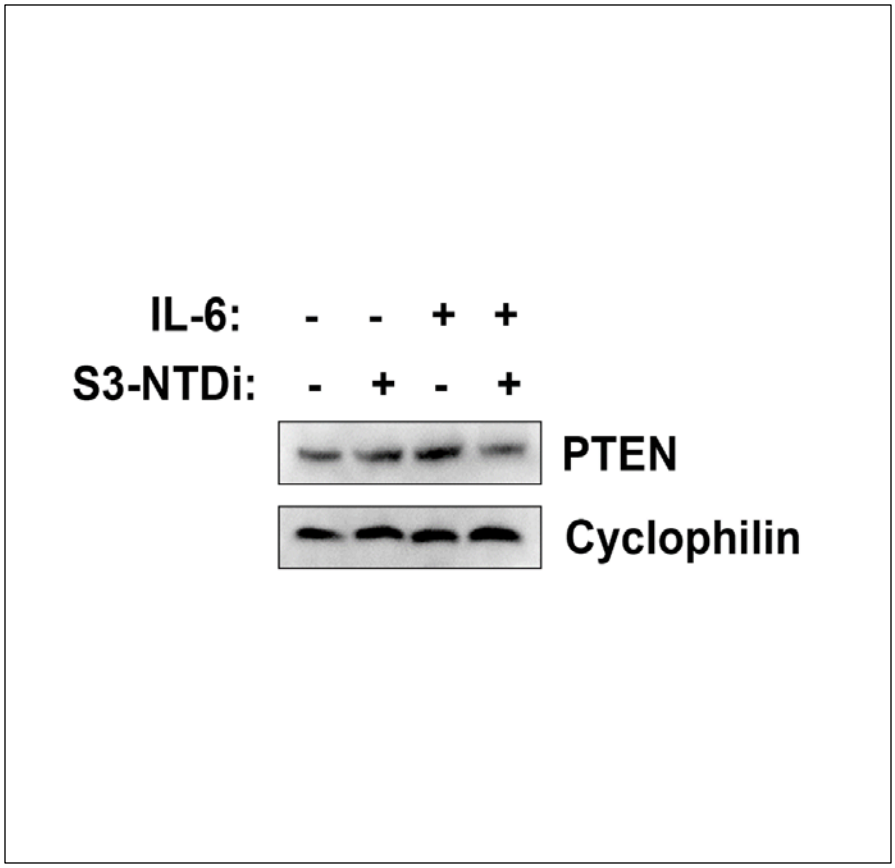

Fig S11: HD-MB03 cells were treated either with S3-NTDi (10μM) or left untreated. After 24h cells were either treated with IL-6 for 20 mins or left untreated. WCE were fractionated in SDS-PAGE and Western immunoblot was performed using PTEN Ab.