The DEAD-box RNA Helicase DDX3 Associates with Export mRNPs as well as TAP and Participates in Translational Control

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Supplemental Figures and Legends

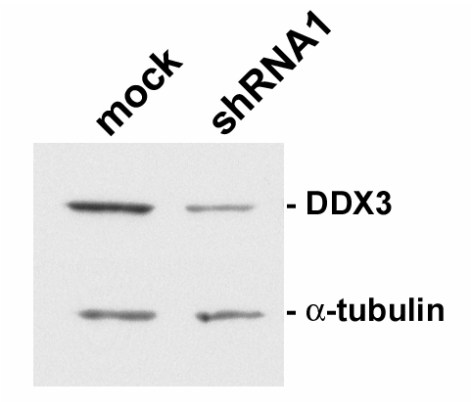
Supplementary Figure S1. Cellular localization of mRNA in DDX3-depleted cells. HeLa cells were transiently transfected with the empty pcDNA(lacZ) vector (mock) or the same vector expressing DDX3-targeting shRNA1. At 48 h post-transfection, the cell lystae was collected for immunoblotting with anti-DDX3 and anti-α-tubulin. Expression of β-gal was detected by immunostaining and subsequently poly(A)$^+$ RNAs were probed with DIG-labeled oligo(dT). The specimens were observed by fluorescence microscopy.

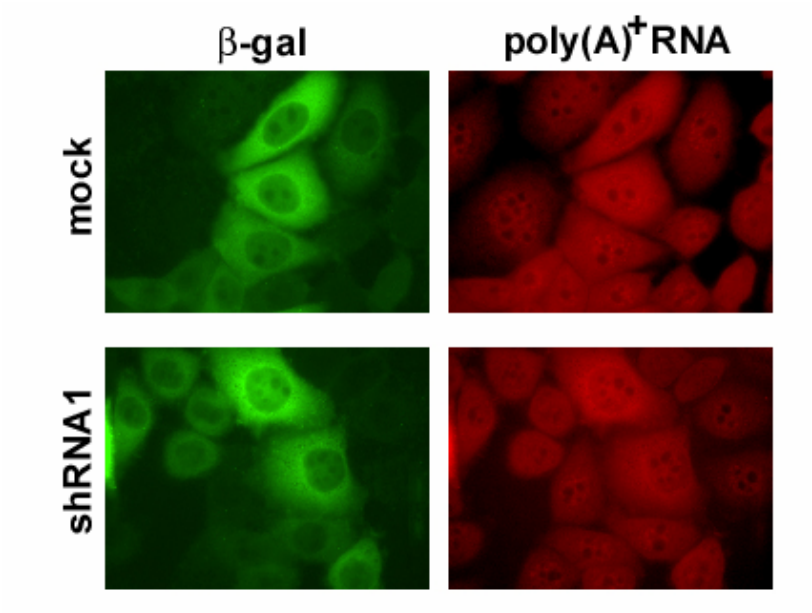
Supplementary Figure S2. Overexpressed DDX3 interacts with endogenous PABP1. FLAG-tagged DDX3 was transiently expressed in HEK293 cells, and was immunoprecipitated from the lysate at 48 h post-transfection. Immunoblotting was performed using antibodies against PABP1 and the FLAG epitope.

Supplementary Figure S3. Assembly of arsenite-induced stress granules in DDX3-depleted cells. HeLa cells were mock-transfected or transfected with the vector encoding DDX3 shRNA1. Immunofluorescence was performed after arsenite treatment using anti-DDX3 and anti-PABP1.

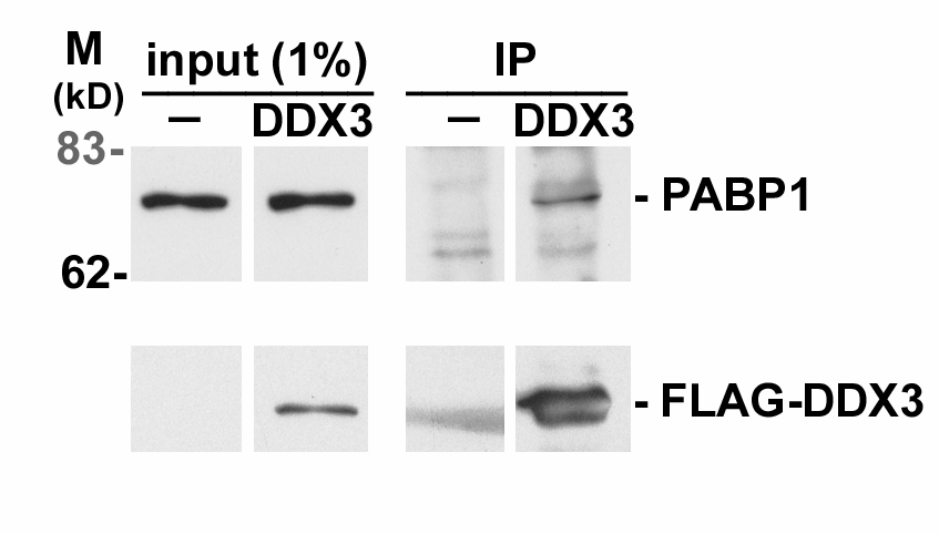
Supplementary Figure S4. Examination of reporter mRNA expression levels in DDX3-depleted cells. Each of the firefly luciferase (FL) reporters (as indicted) was cotransfected with the *Renilla* luciferase (RL) vector as well as the empty pSilencer vector (mock) or the vector expressing DDX3 shRNA1 or shRNA2 or TNPO3 shRNA (control, lane 4) into HeLa cells for 48 h. RT-PCR was performed using specific primers to detect the expression level of FL and RL.

Supplementary Figure S1

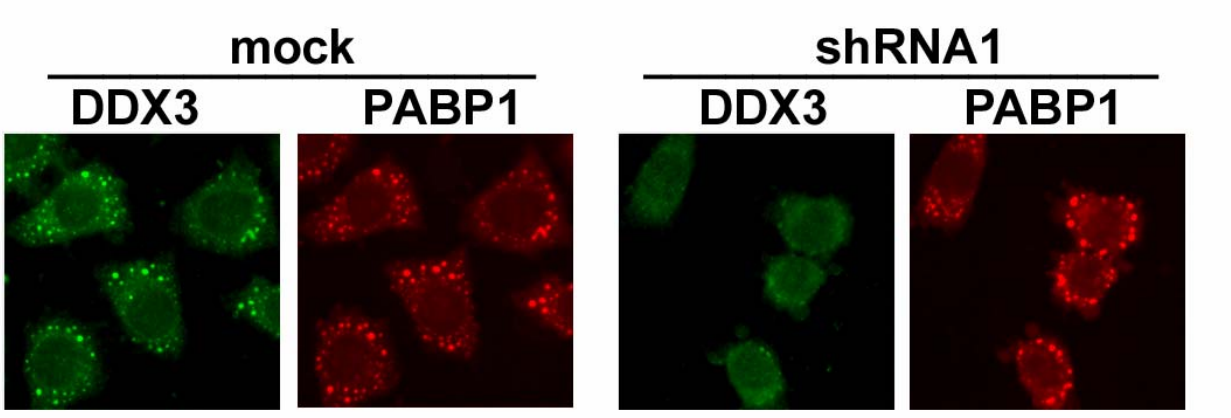




Supplementary Figure S2



Supplementary Figure S3



Supplementary Figure S4