Electronic Supplementary Material (ESI) for Metallomics.

Supporting Online Materials for

Role of Arsenic (+3 oxidation state) Methyltransferase in Arsenic Mediated APL Treatment: An in vitro Investigation

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Table S1.

Gene	Primer Sequence（5'-3'）	T_A(℃)	Cycle
AS3MT	FP: GACGTGCAGACCTACTACGG RP: ACCCAGACACTCACCCCATA	55	35
MRP-1	FP: ATGTCACGTGGAATACCAGC RP: GAAGACTGAACTCCCTTCCT	57	35
MRP-2	FP: ACAGAGGCTGGTGGCAACC RP: ACCATTACCTTGTCACTGTCCATGA	59	35
β-actin	FP: GCTGTCACCTTCACCGTTCC RP: CTCCATCCTGGCCTCGCTGT	61	28

T_A: Annealing Temperature

Supplementary Figure Legends and Figures

Figure S1. Comparison of PML-RARα fusion protein degradation in 293T cells with or without co-expression of AS3MT

Flag-PML-RARα was co-transfected with vector or GFP-AS3MT in 293T cells. 24h after transfection, cells were treated with 2μM iAs^{III} for 12h. Then, degradation of PML-RARα fusion protein was detected by western blot.

Figure S2. Protein Expression of MRP Isoforms in Different Cell Lines

Cellular localization of MRP1 (**A**) and MRP2 proteins (**B**) in Hela, HepG2 and HEK293T cells were imaged with a laser scanning confocal microscope as described in materials and methods. The green fluorescence indicates MRP1 and 2, while the blue fluorescence indicates cell nucleus. Gene (mRNA) expressions of MRP1 and 2 were determined by RT-PCR (**C**) and MRP protein expressions in HeLa, HepG2 and HEK293T were determined by western blot (D). Moreover, protein expression of AS3MT in HepG2 cells was determined by western blot with anti-GFP antibody 24h after transfection of GFP-hAs3MT gene into HepG2 cells (**E**). Intracellular localization and expression of AS3MT was observed by a laser scanning confocal microscope (**F**).

Figure S1

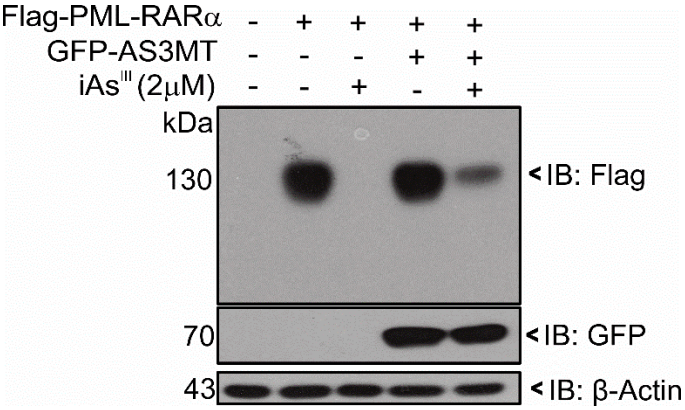
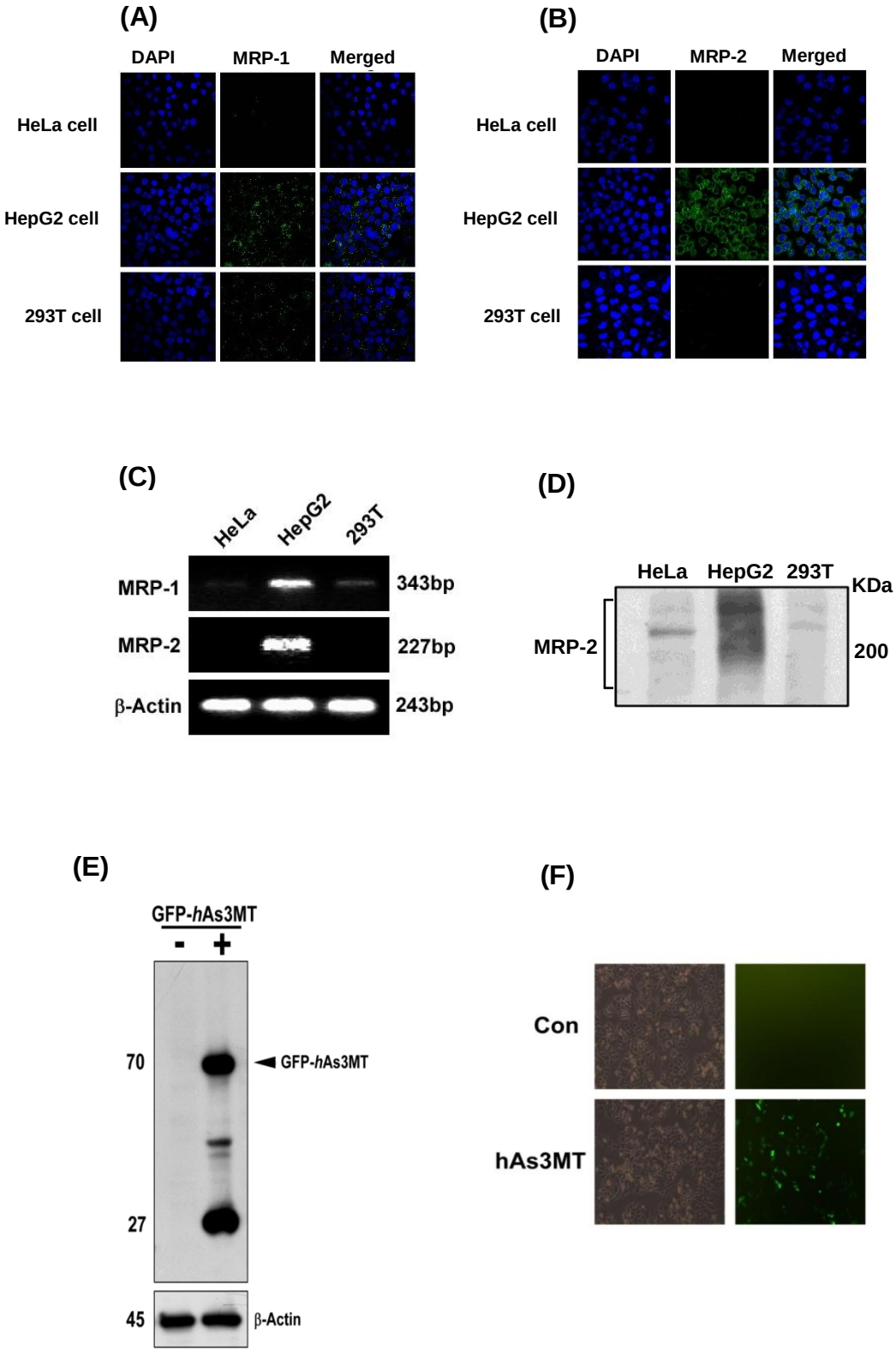

Flag-PML-RARα - + + + +
GFP-AS3MT - - - + +
iAs^III (2μM) - - + - +
kDa
130
70
43
IB: Flag
IB: GFP
IB: β-Actin

Figure S2


(A)
DAPI
MRP-1
Merged
HeLa cell
HepG2 cell
293T cell
(B)
DAPI
MRP-2
Merged
HeLa cell
HepG2 cell
293T cell
(C)
HeLa
HepG2
293T
MRP-1
343bp
MRP-2
227bp
β-Actin
243bp
(D)
HeLa
HepG2
293T
KDa
MRP-2
200
(E)
GFP-hAs3MT
-
+
70
GFP-hAs3MT
27
45
β-Actin
(F)
Con
hAs3MT