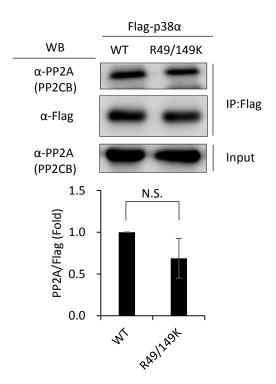


**Figure S1.** PRMT6 does not methylate p38 $\alpha$ . HA-PRMT1, HA-PRMT1G80R, HA-PRMT6 and HA-PRMT6KA proteins were ectopically expressed in K562 cells and immunoprecipitated using anti-HA antibodies. The *in vitro* methylation assays were performed and methyl incorporation was visualized by fluorography as described in Methods. HA-PRMT1, but not HA-PRMT1G80R, methylated the recombinant p38 $\alpha$  proteins. HA-PRMT6 was readily automethylated however did not methylate p38 $\alpha$ . As expected, HA-PRMT6KA, a methyltransferase-defective mutant, did not methylated itself.



**Figure S2.** P38 $\alpha$  is associated with protein phosphatase 2A and R49/149K mutation does not apparently affect the association. The Fla-p38 $\alpha$  WT and R49/149K mutant proteins were immunoprecipitated using anti-Flag antibodies. Protein phosphatase 2A (PP2A) was associated with p38 $\alpha$  and the R49/149K mutant to a comparable extent as examined by Western blotting.