

Mitochondrial MDM2 Regulates Respiratory Complex I Activity Independently of p53

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mtMDM2 depletion in cancer cells increase NADH-linked OXPHOS respiration

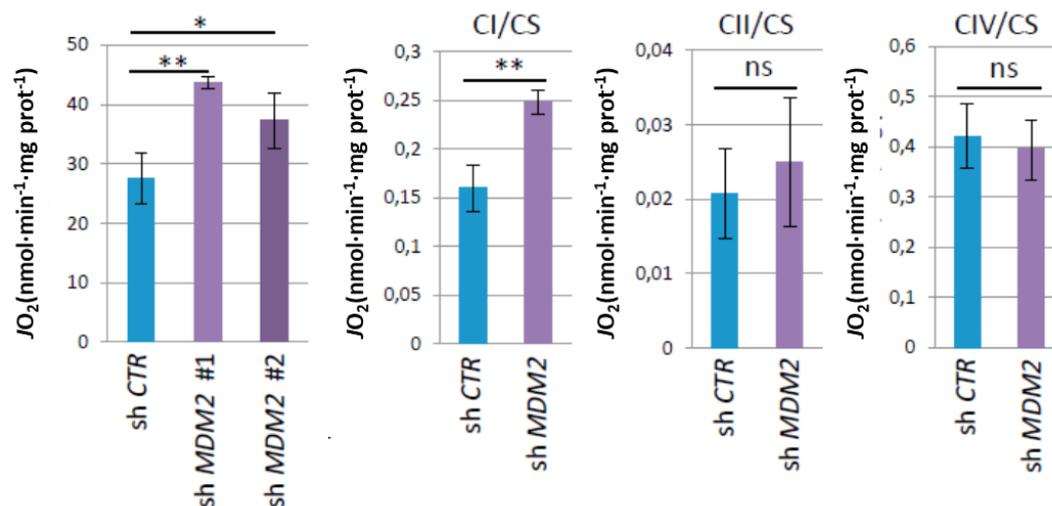


Figure 1. NADH-linked pathway OXPHOS capacity. Lung cancer cells H1299 were transduced with lentiviruses encoding control or two independent *MDM2* shRNAs **(a)** NADH-linked was fuelled with glutamine, malate and pyruvate **(b)** Complex IV activity, NADH- and succinate pathways were assessed to evaluate the control exerted by MDM2 over respiration. Mean ± SEM, N=3.

MDM2 localization regulates NADH-linked OXPHOS capacity

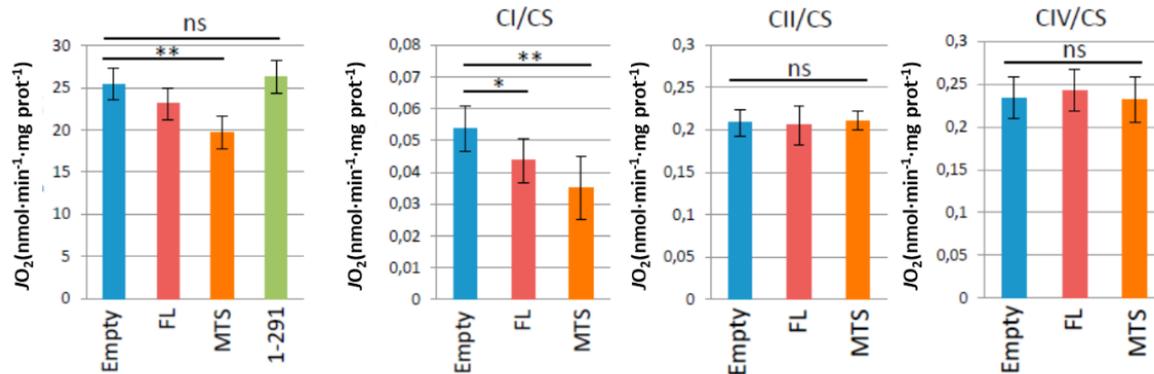


Figure 2. NADH-linked pathway OXPHOS capacity expressing different MDM2 isoforms. H1299 cells expressing Flag full-length FL-MDM (FL), mitochondrial targeted MTS-MDM2 (MTS), cropped MDM2 1-292 (1-291) or cells transfected with an empty vector (Control). Mean \pm SEM, $N=3$.

Reference: Arena G, Cissé MY, Pyrdziak S, Chatre L, Riscal R, Fuentes M, Arnold JJ, Kastner M, Gayte L, Bertrand-Gaday C, Nay K, Angebault-Prouteau C, Murray K, Chabi B, Koechlin-Ramonatxo C, Orsetti B, Vincent C, Casas F, Marine JC, Etienne-Manneville S, Bernex F, Lombès A, Cameron CE, Dubouchaud H, Ricchetti M, Linares LK, Le Cam L (2018) Mitochondrial MDM2 regulates respiratory complex I activity independently of p53. *Mol Cell* 69:594-609.