

# Supplementary file

**Cell adhesion to collagen promotes leukemia resistance to doxorubicin by reducing  
DNA damage through the inhibition of Rac1 activation.**

**Dalila Naci<sup>#</sup>, Sofiane Berrazouane, Frédéric Barabé<sup>1</sup> and Fawzi Aoudjit<sup>2\*</sup>**

Centre de recherche du CHU de Québec-Université Laval, Axe des maladies infectieuses et immunitaires.

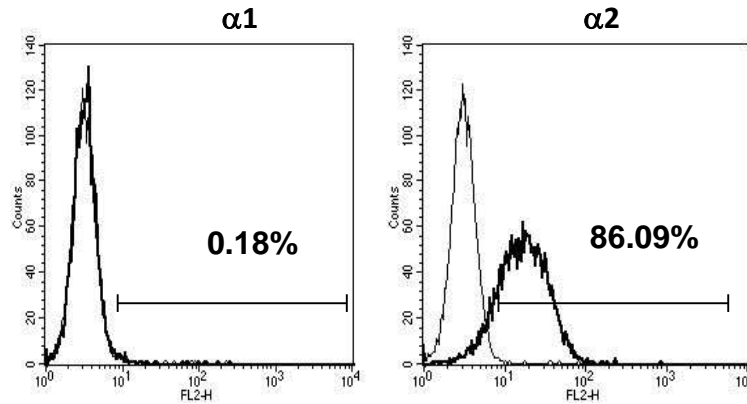
<sup>1</sup>Département de Médecine, Faculté de Médecine, Université Laval, Québec, Canada

<sup>2</sup>Département de Microbiologie-infectiologie et Immunologie, Faculté de Médecine, Université Laval, Québec, Canada.

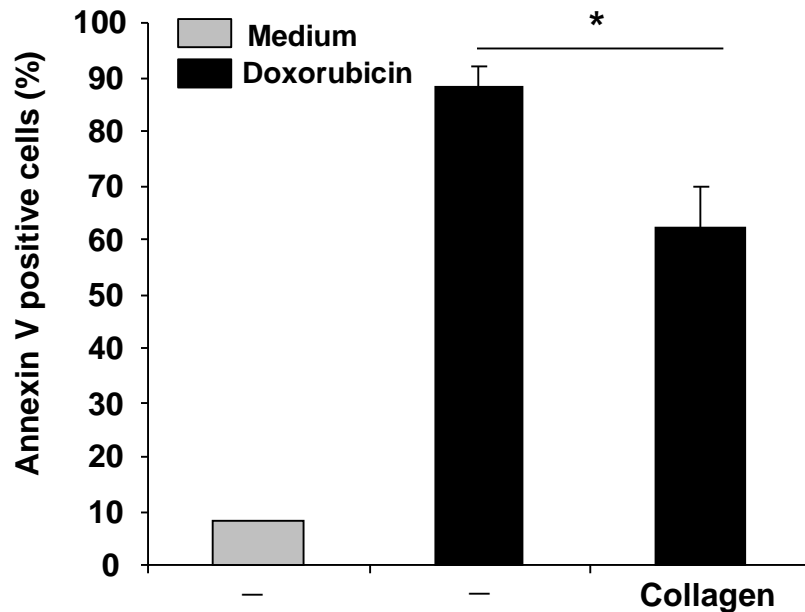
# Present Address: The Hospital for Sick Children, University of Toronto, Toronto, Canada.

# Additional File 1

**A**

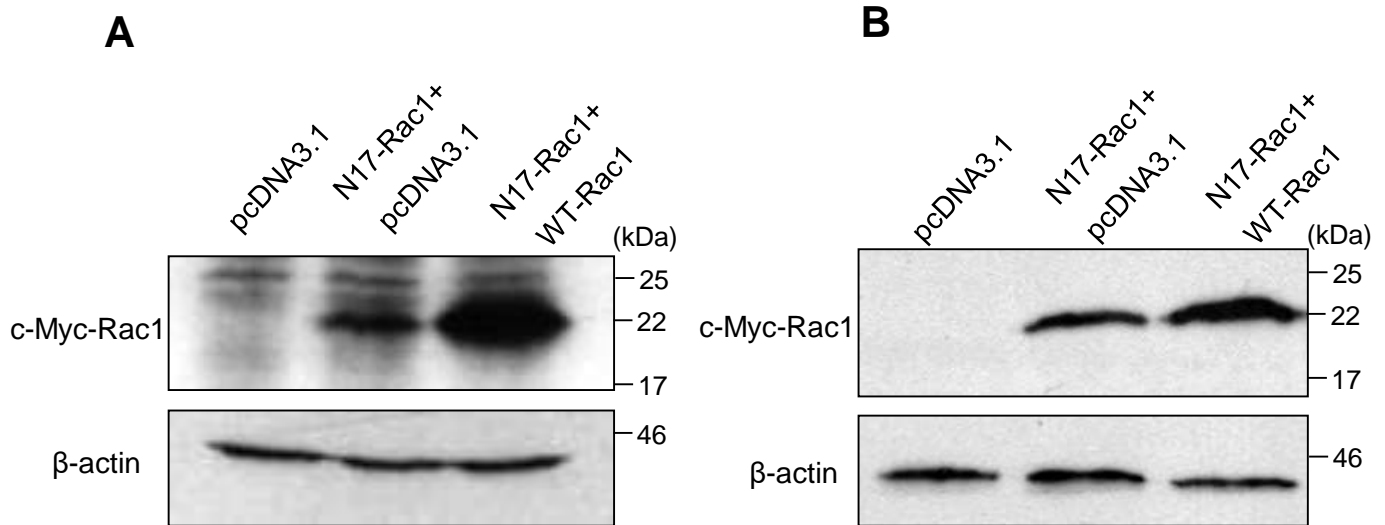


**B**



**Figure S1: Collagen promotes PLB-985 AML cell protection against doxorubicin-induced apoptosis.** A) PLB-985 cells express  $\alpha 2\beta 1$  but not  $\alpha 1\beta 1$ , collagen-binding integrin. Expression levels of  $\alpha 1$  and  $\alpha 2$  integrin subunits were determined by flow cytometry using PE-conjugated specific antibodies. B) Collagen reduces doxorubicin-induced apoptosis of PLB-985 cells. Cells were cultured on collagen for 4h and then treated with doxorubicin for 24h. Apoptosis was evaluated by AnnexinV-FITC staining and FACS analysis. The results represent the mean values  $\pm$  SD from two independent experiments. \* $p < 0.05$ .

## Additional File 2



**Figure S2:** U937 (A) and Jurkat cells (B) were co-transfected with c-Myc-tagged dominant negative Rac1 (N17Rac1) and wild-type Rac1 (WT-Rac1) plasmids using nucleofector. Transfections with pcDNA3.1 plasmids were used as controls. Viable cells were recovered 24h after transfection by ficoll gradient. c-Myc expression was determined by western blot analysis using the anti-c-Myc specific antibody.  $\beta$ -actin was assessed to control equal loading.