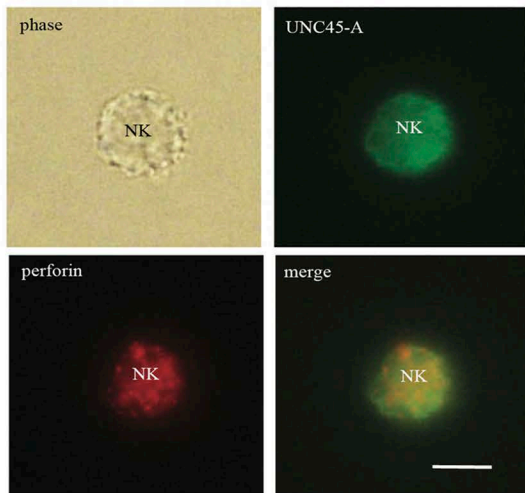
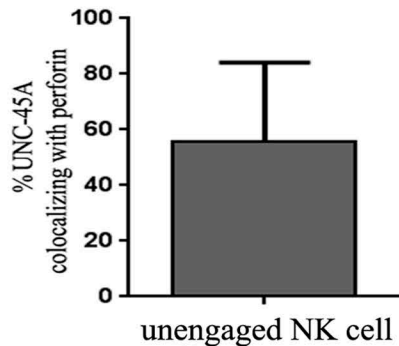


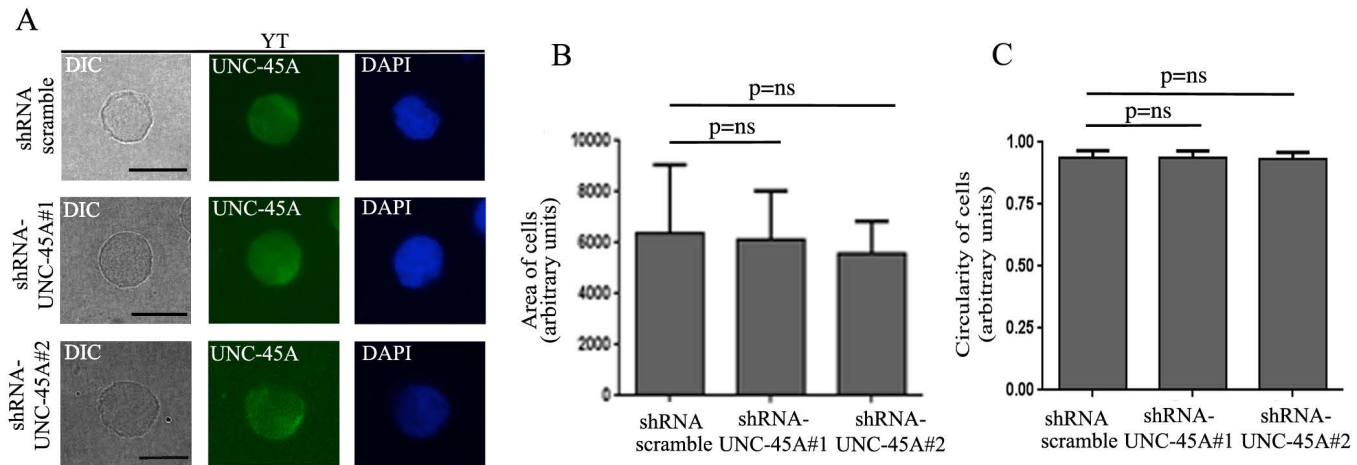
## A unengaged NK cell



B

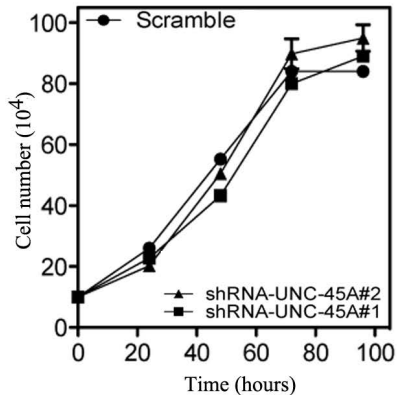


**Supplementary Figure 1. UNC-45A has a ubiquitous sub-cellular localization in unengaged NK cells.** (A) YT cells expressing a GFP-UNC-45A fusion protein were incubated in presence of 721.221 cells and stained with an anti-perforin antibody. Sub-cellular localization of UNC-45A in unengaged cells was analyzed via fluorescence microscopy. Bars= 5 $\mu$ M. (B) Quantification of the % of UNC-45A co-localizing with perforin in unconjugated YT cells.

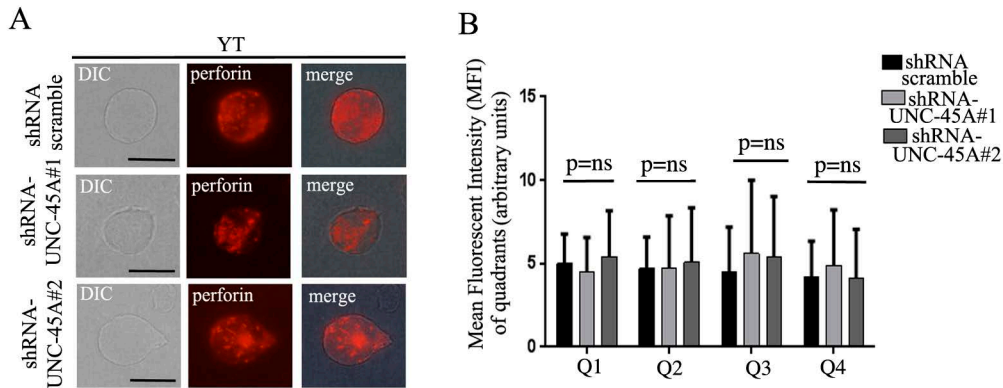


**Supplementary Figure 2. UNC-45A knockdown does not affect NK cell morphology.**

(A) **Stable** YT cells expressing either scramble or UNC-45A knockdown (KD#1 and KD#2) evaluated for their morphology via phase contrast microscopy and DAPI staining. Bars 5 $\mu$ M. (B) Evaluation of cells' area in YT cells expressing either scramble or UNC-45A knockdown (KD#1 and KD#2). (C) Evaluation of cells' shape (circularity) in YT cells expressing either scramble or UNC-45A knockdown (KD#1 and KD#2).



**Supplementary Figure 3. UNC-45A knockdown does not affect NK cell proliferation rate.** Stable YT cells expressing either scramble or UNC-45A knockdown (KD#1 and KD#2) evaluated for their viability by counting them at the indicated time points in a in the presence of trypan blue. Average of three independent experiments conducted in triplicates.



**Supplementary Figure 4. UNC-45A knock down does not alter perforin sub cellular localization in unengaged NK cells.** (A) YT, NK cells transduced with either shRNA-scramble or shRNA targeting two different UNC-45A regions (#1 and #2) and incubated with 721.221 target cells. Following fixation, NK unengaged cells were stained with anti-perforin monoclonal antibody followed by Texas Red-goat anti-mouse IgG and analyzed via fluorescence microscopy. (B) Quantification of Mean Fluorescent Intensity (MFI) per quadrant. Per each condition the four cells' quadrants (Q1, Q2, Q3 and Q4) were analyzed.