Supplementary Figure 1: NT-3 is expressed in a large fraction of stage 1, 2, 3, 4s NB.

(A) NT-3 and TrkC expression mesured by Q-RT-PCR on total RNA from tumors from a total of 69 NB patients (14 stage 1, 22 stage 2, 13 stage 3 and 20 stage 4s). The percentage of tumors expressing NT-3 more than two fold of the value corresponding to the median is indicated (upper panel). HPRT expression was used as an internal control. NT-3/TrkC ratio is described in the lower panel. **(B)** CLB-Ge2 and IMR32 cells were cultured in presence of 5μM 5-Aza-2'-deoxycytidine (5-Aza) or DMSO (control) during 24h. NT-3 levels where then quantified by Q-RT-PCR. Data represents mean ± SEM; ∗ indicates a $p<0.05$ calculated by a two-sided Mann-Whitney test.

Supplementary Figure 2: NT-3/TrkC interference promotes neuroblastoma cell death.

(A) Efficacy of a mix of three NT-3 siRNAs (siRNA NT-3) and 2 independent NT-3 siRNAs (siRNA NT-3-a and siRNA NT-3-b) was evaluated by either Q-RT-PCR (below panel) or ELISA (upper panel) in 13.S.24 cells transfected with human NT-3 expressing construct. Below panel: PCR products were loaded on an agarose gel. Upper panel: NT-3 protein level detected in the conditioning medium was measured by ELISA assay is indicated here in pg/ml **(B)** Effect of NT-3 siRNAs (siRNA NT-3, siRNA NT-3-a and siRNA NT-3-b) on endogenous NT-3 levels was measured by Q-RT-PCR 24h after siRNA transfection of NB cells. HPRT expression was used as an internal control. **(C)** Cell death induction in

CLB-Ge2, CLB-VolMo, SHEP-CLB and IMR32 cell lines was quantified after transfection with either scramble siRNA (siRNA scr) or a two independent siRNAs targeting NT-3 (siRNA NT-3-a and siRNA-NT-3-b), using relative caspase-3 activity assay. **(D)** Cell death induction in CLB-VolMo or IMR32 cell lines was quantified by TUNEL assay in cells treated with (α TrkC) or without (control) anti-TrkC antibody. **(E)** Cell death induction in CLB-Ge2 or IMR32 cell lines was quantified in cells treated either with (α TrkC) anti-TrkC antibody, TrkC extracellular domain (Fc-TrkC-EC) or with an isotypic control (control antibody) by relative caspase-3 activity assay. In **B**-**E** data represents mean ± SEM; $*$ indicates a $p<0.05$ calculated by using a two-sided Mann-Whitney test, compared to control. **(F)** NT-3 and TrkC expression was amplified by RT-PCR on cDNA extracted from the tumor biopsy and the bone marrow taken from a stage 4 NB patient, and visualized on an agarose gel.

Supplementary Figure 3. NT-3/TrkC interference promotes TrkC pro-apoptotic activity

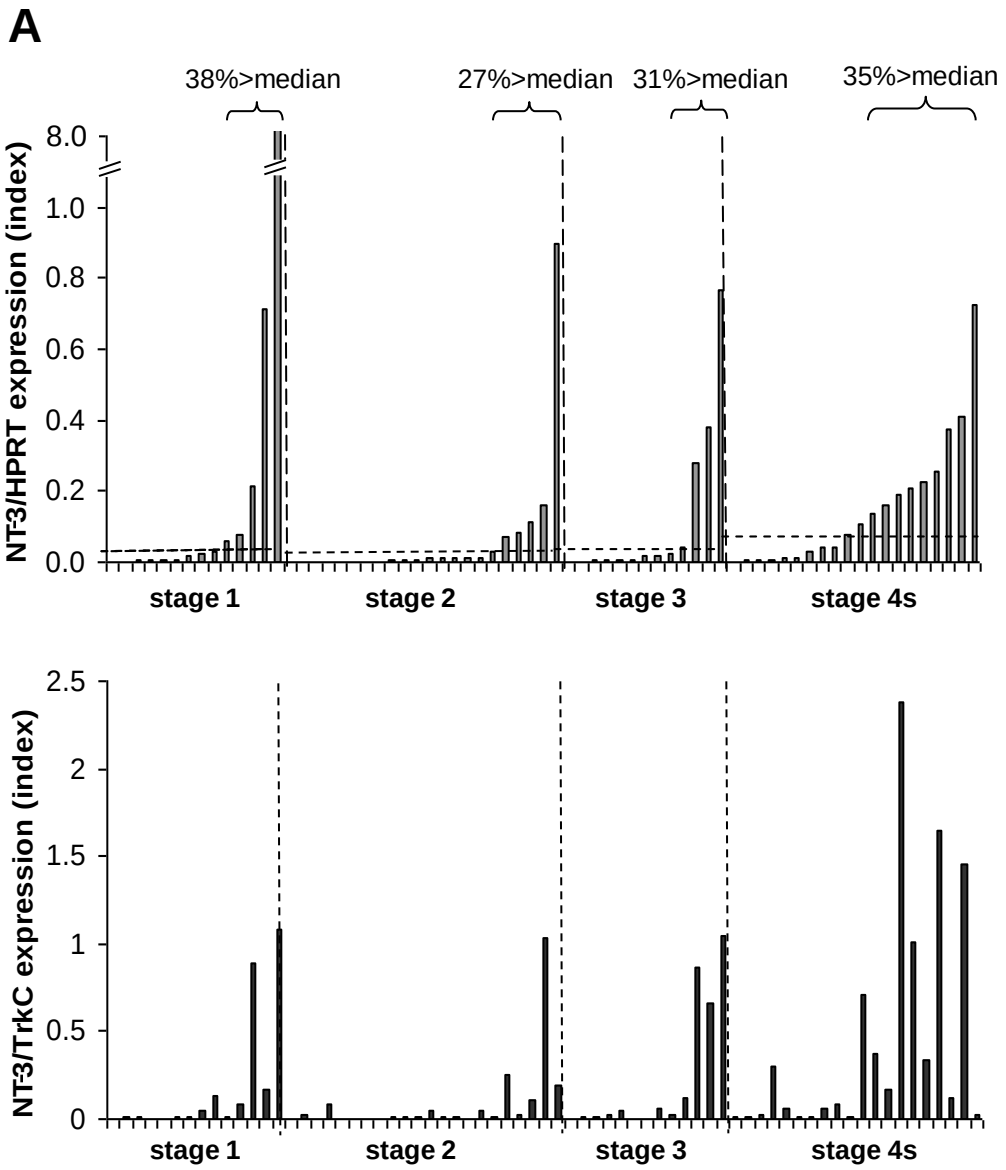
(**A-B**) CLB-Ge2 and CLB-VolMo cells were transfected with either empty vector or with a plasmid encoding the dominant negative TrkC-IC D641N and treated 24h with (+) or without (-) α TrkC antibody. CLB-Ge2 cell death was monitored by trypan blue exclusion **(A)**. CLB-VolMo cell death was monitored by TUNEL labeling on citospun cells **(B)**. TrkC expression was controlled by western blot anti-TrkC (lower panel). Representative images are shown on the right panels. Magnification=20X. **(C-E)** Cell death induction in CLB-Ge2, CLB-VolMo and

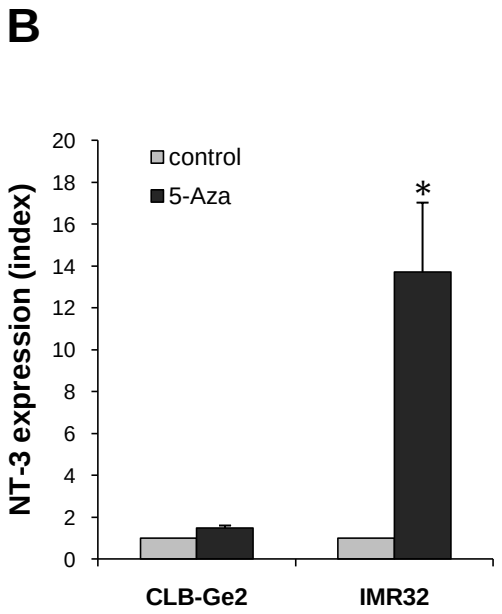
SHEP-CLB cells was quantified after transfection with either scramble siRNA, TrkC siRNA, NT-3 siRNA or a mix of TrkC or NT-3 siRNA, using relative caspase-3 activity assay. The effect of siRNA-NT-3-a and siRNA-NT-3-b sequences was analyzed independentely **(D-E).** In **A**-**E**, data represents mean ± SEM; ∗ indicates a $p<0.05$ calculated by a two-sided Mann-Whitney test. ∗∗ indicates a $p<0.01$ calculated with a Chi-square test.

Supplementary Figure 4. IMR32 cells are insensitive to TrkC expression.

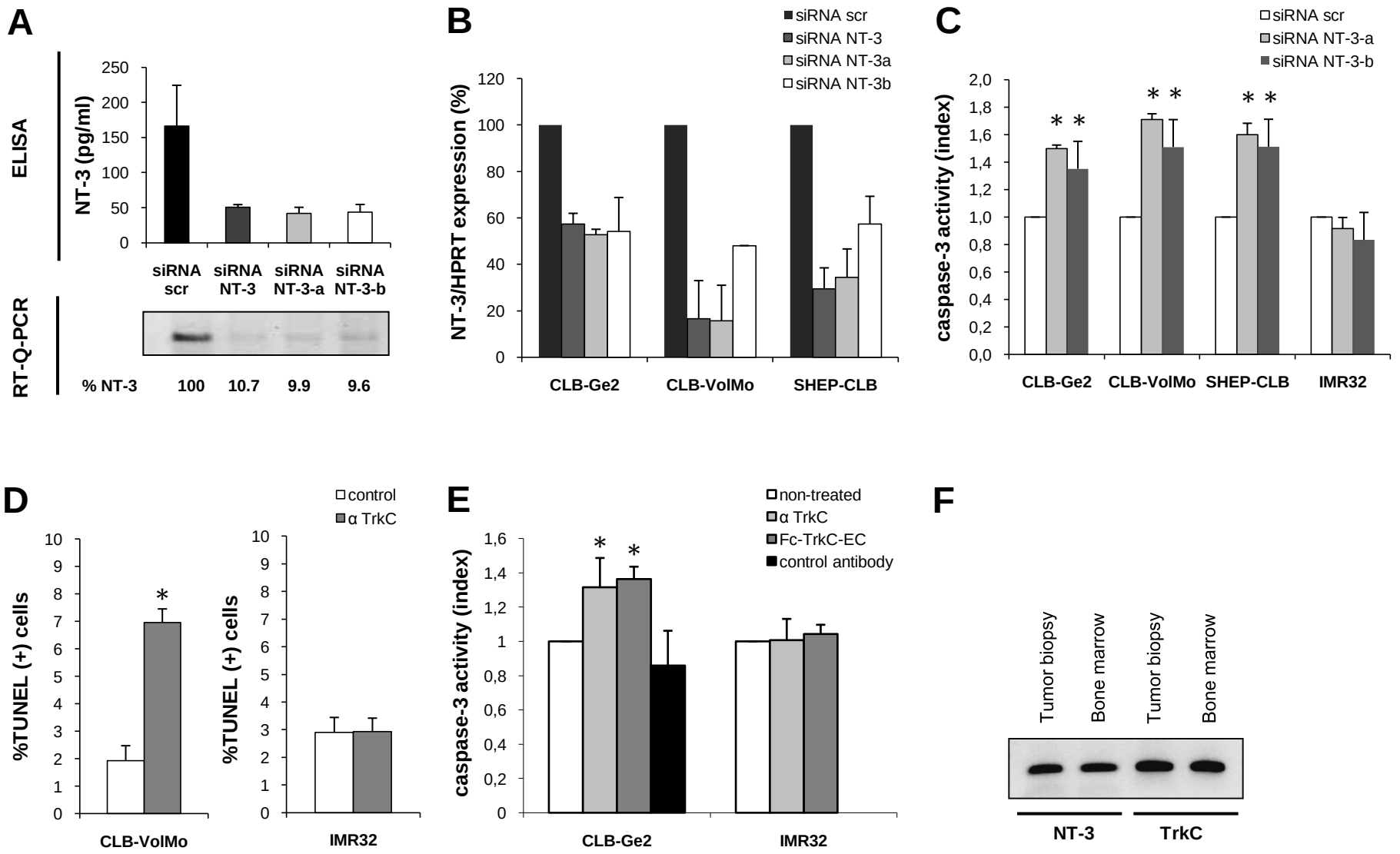
IMR32 cells were transiently transfected with an empty vector, Bax or TrkC expressing construct and cell death was measured after 24 hours by Toxilight assay (left) or by TUNEL staining (right). Magnification=20X. Data represents mean ± SEM; ∗ indicates a $p<0.05$ calculated by a two-sided Mann-Whitney test.

Supplementary Figure 1.

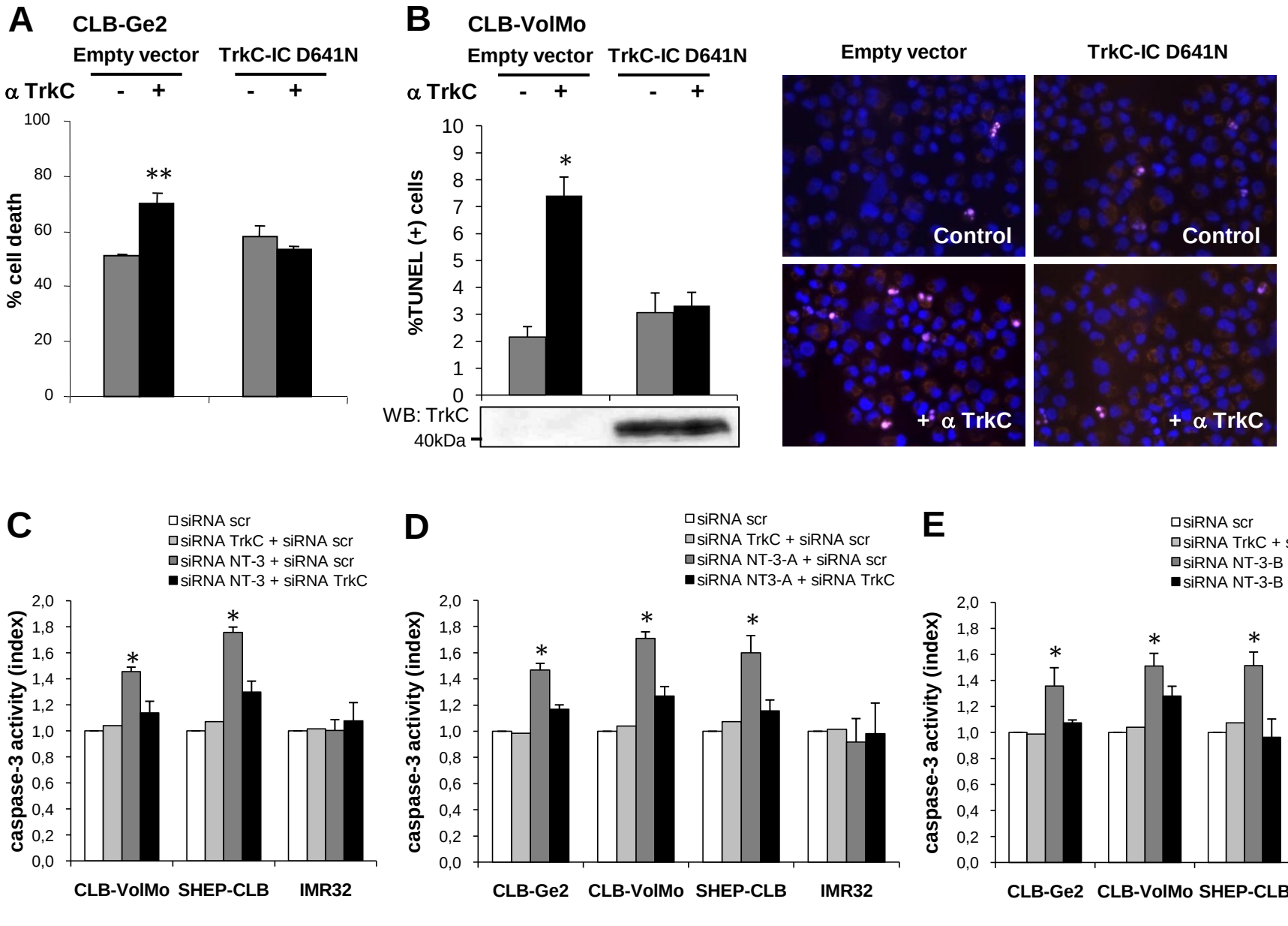




Supplementary Figure 2.



Supplementary Figure 3.



Supplementary Figure 4.