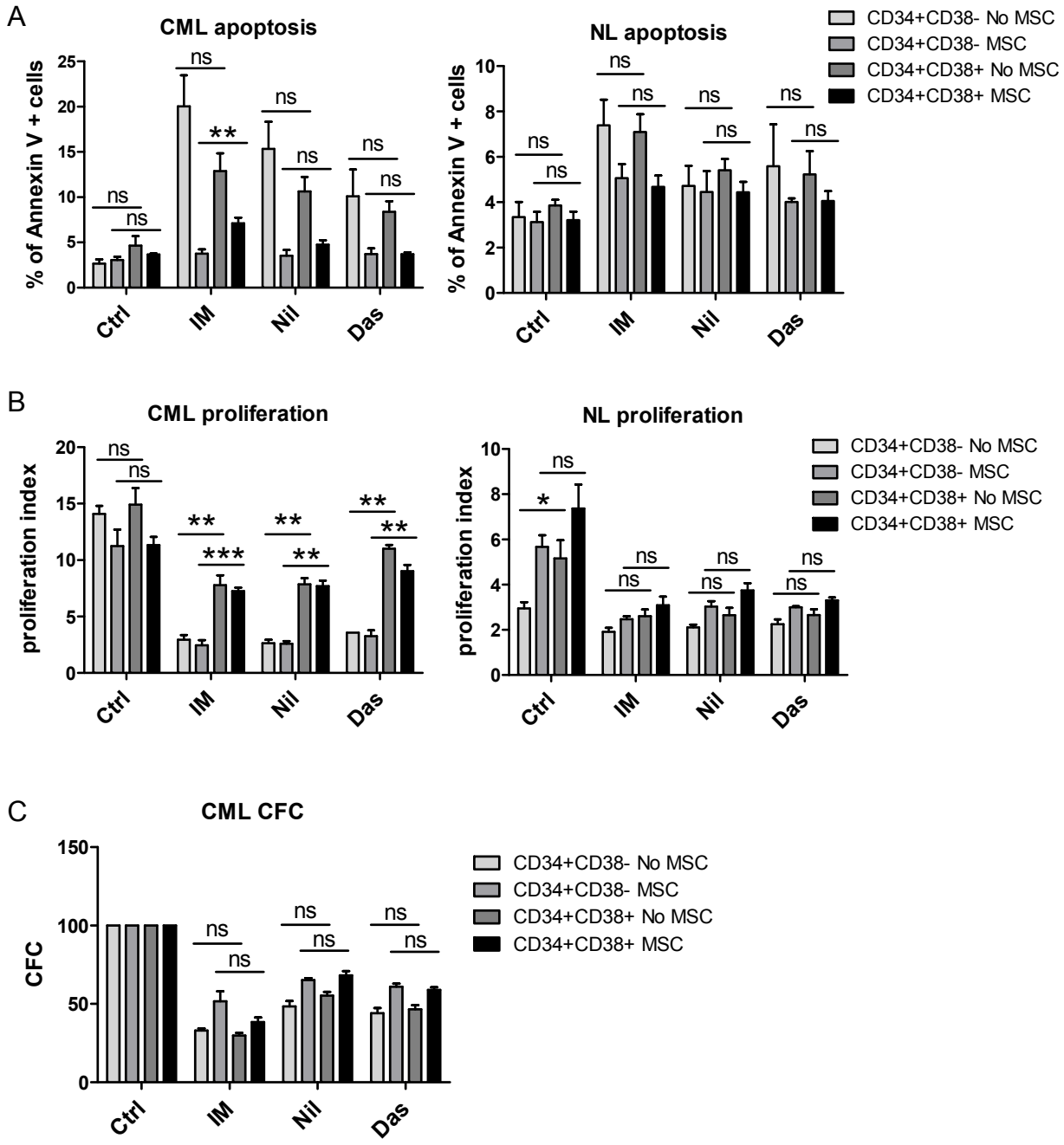
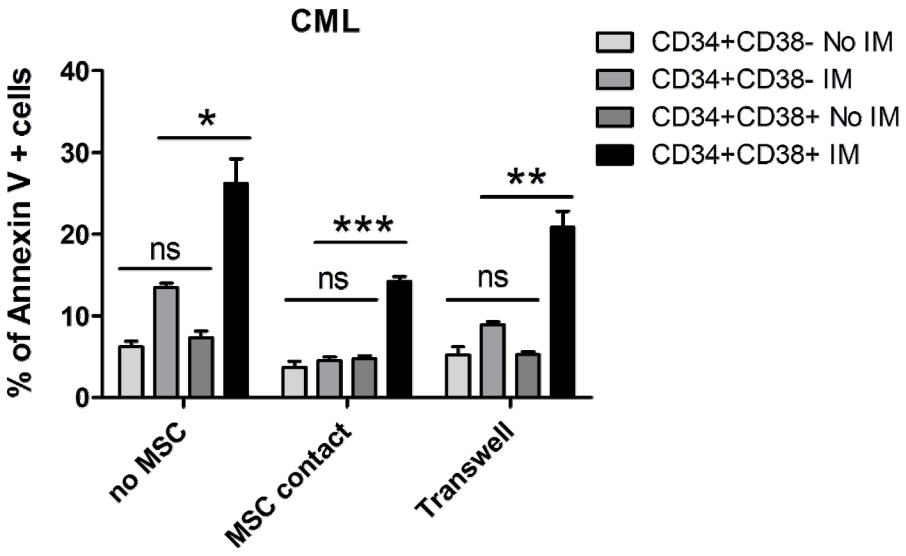


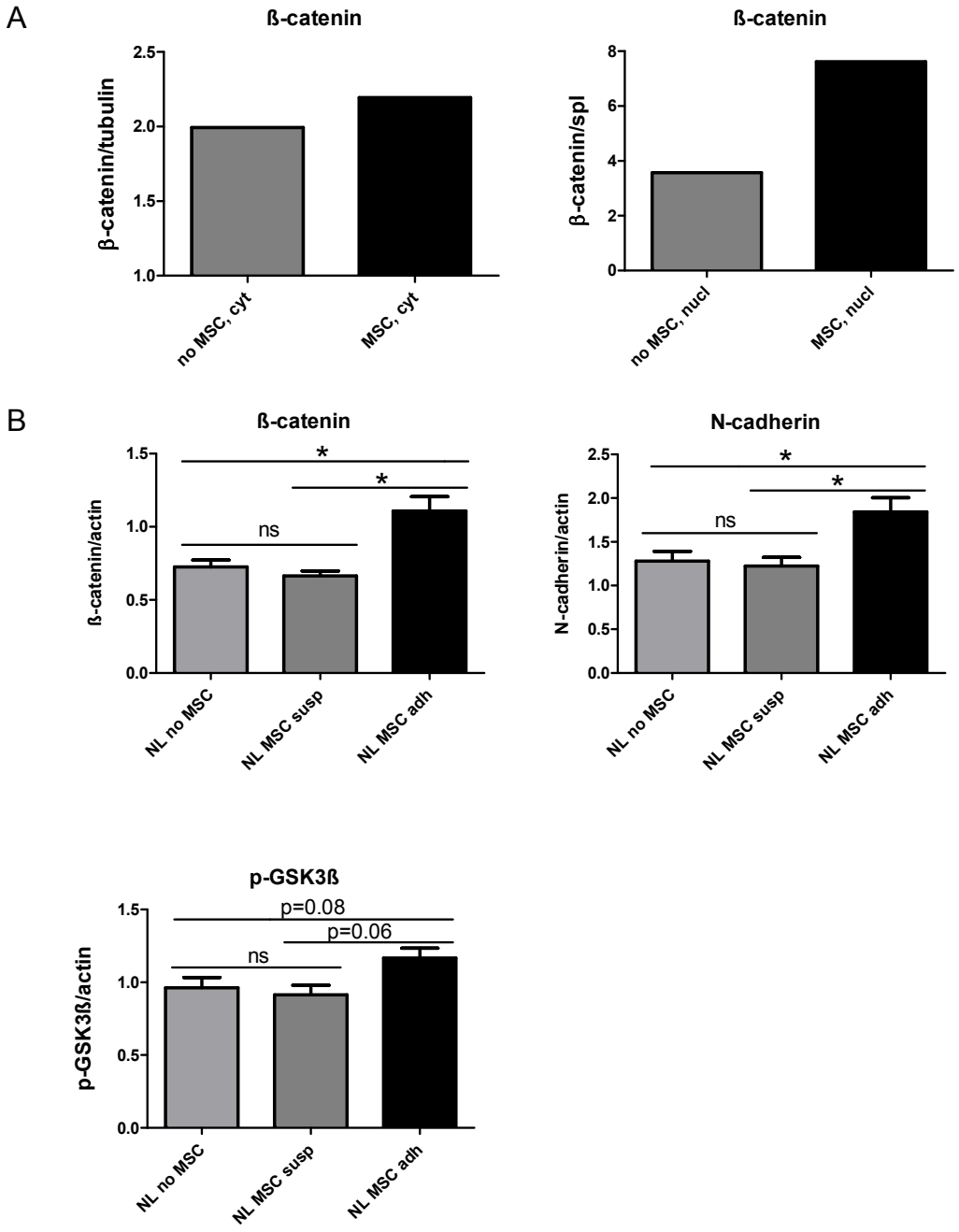
Supplemental Figure 1. MSC protect CML CD34+CD38- and CD34+CD38+ cells from TKI

treatment. (A) The data shown in Figure 1A and 1B were reorganized to allow comparison of apoptosis in CD34+CD38- and CD34+CD38+ cells from CML (left) and normal (right) samples, cultured with or without TKI and with or without MSC. (B) The data shown in Figure 1C and 1D were reorganized to allow comparison of proliferation index for CD34+CD38- and CD34+CD38+ cells from CML (left) and normal (right) samples cultured with or without TKI and with or without MSC. (C) The data shown in Figure 1H were reorganized to allow comparison of colony forming cells generated from CD34+CD38- and CD34+CD38+ cells from CML samples cultured with or without TKI and with or without MSC. Significance values: ns, not significant; *, $p<0.05$; **, $p<0.01$; ***, $p<0.001$; n=3.

A

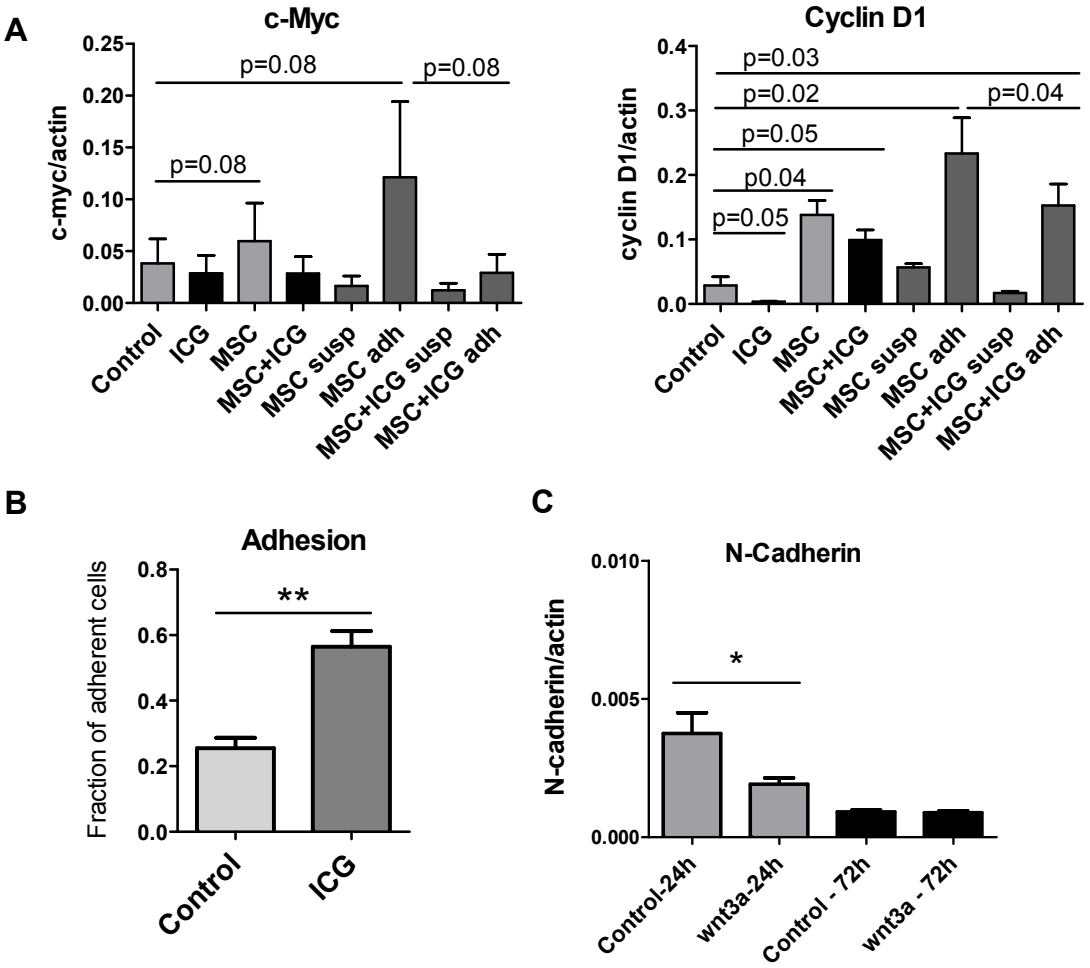


Supplemental Figure 2. Role of stroma contact in MSC-mediated protection of CML stem/progenitor cells from TKI treatment. **(A)** The data shown in Figure 3D was reorganized to allow comparison of apoptosis of CML $CD34^{+}CD38^{+}$ and $CD34^{+}CD38^{-}$ cells cultured without MSC, in a Transwell insert above MSC layers or in contact with MSC, in the absence or presence of IM. Significance values: ns, not significant; *, $p<0.05$; **, $p<0.01$; ***, $p<0.001$; n=3.



Supplemental Figure 3. Role of Wnt-β-catenin signaling in MSC-mediated protection of

CML stem/progenitor cells from TKI treatment. (A) Results of densitometry performed on the Western blots shown in Figure 4E, evaluating β-catenin protein expression in cytoplasmic and nuclear fractions from CML $CD34^+$ cells cultured with and without MSC. (B) Results of densitometry on the Western Blots shown in Figure 4H, evaluating N-Cadherin and p-GSK3β protein expression in normal CD34+ cells in the presence or absence of MSC, and in adherent (adh) and non-adherent suspension (susp) cells. Significance values; ns, not significant; *, $p<0.05$; n=3.



Supplemental Figure 4. Effect of Wnt-β-catenin signaling on CML stem/progenitor cells

(A) Q-PCR analysis for mRNA expression of the Wnt-β-catenin target genes Cyclin D1 and C-MYC in CML $CD34^+$ cells cultured as shown. (B) The fraction of MSC-adherent CML $CD34^+$ cells with or without ICG. (C) N-Cadherin mRNA levels in CML $CD34^+$ cells cultured with and without Wnt3a (100ng/ml) at 24 hours and 72 hours.(D) Western blotting for β-catenin, N-Cadherin and actin in CML CD34+ cells treated with or without Wnt3a for 72 hours.

Supplemental Table 1. Primers used for Q-RT-PCR assays

	Sense	anti-sense
N-Cadherin	5'-GCCCCTCAAGTGTTACCTCAA-3'	5'-AGCCGAGTGATGGTCCAATTT-3'
CCND1	5'-CCGAGAAGCTGTGCATCTACAC-3'	5'-AGGTTCCACTTGAGCTTGTTCAC-3'
c-MYC	5'-AGGAGACATGGTGAACCAGAGT-3'	5'-AGCCTGCCTCTTTTCCACAGAAAC-3'
PPARD	5'-GAGGGGTGCAAGGGCTTCTT-3'	5'-CACTTGTTGCGGTTCTTCTTCTG-3'
GAPDH	5'-TTGGTATCGTGGAAGGACTCA-3'	5'-TGTCATCATATTTGGCAGGTTT-3'