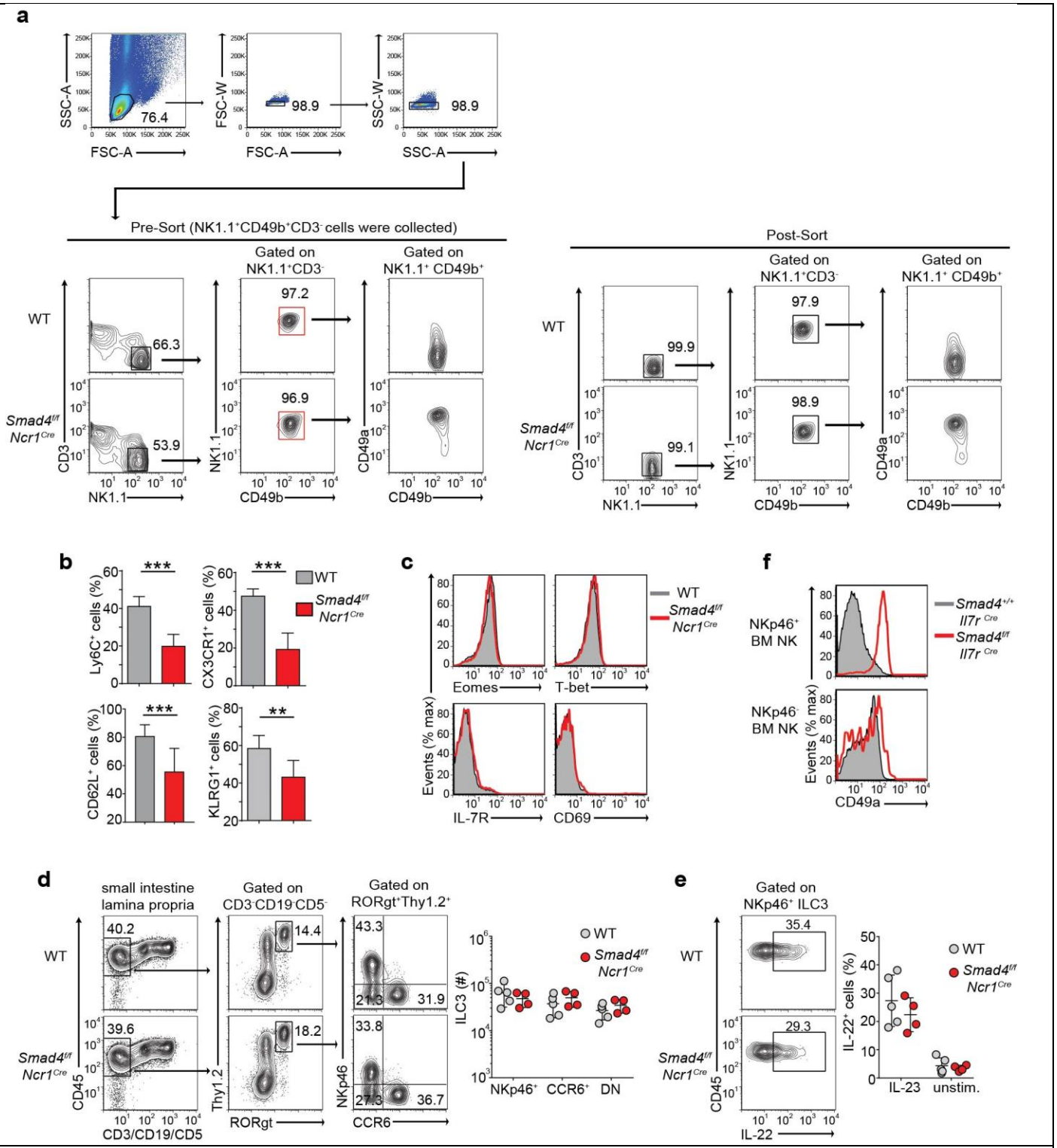
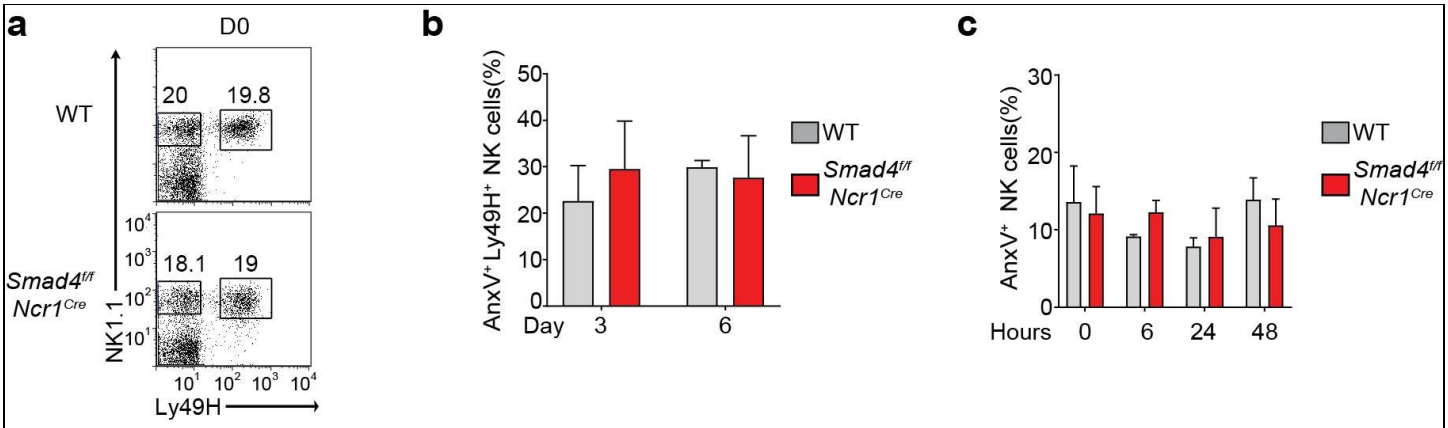


Supplementary Figure 1

Marker expression by NK cells and from WT and *Smad4$^{f/f}$ x Ncr1^{iCre}* mice.

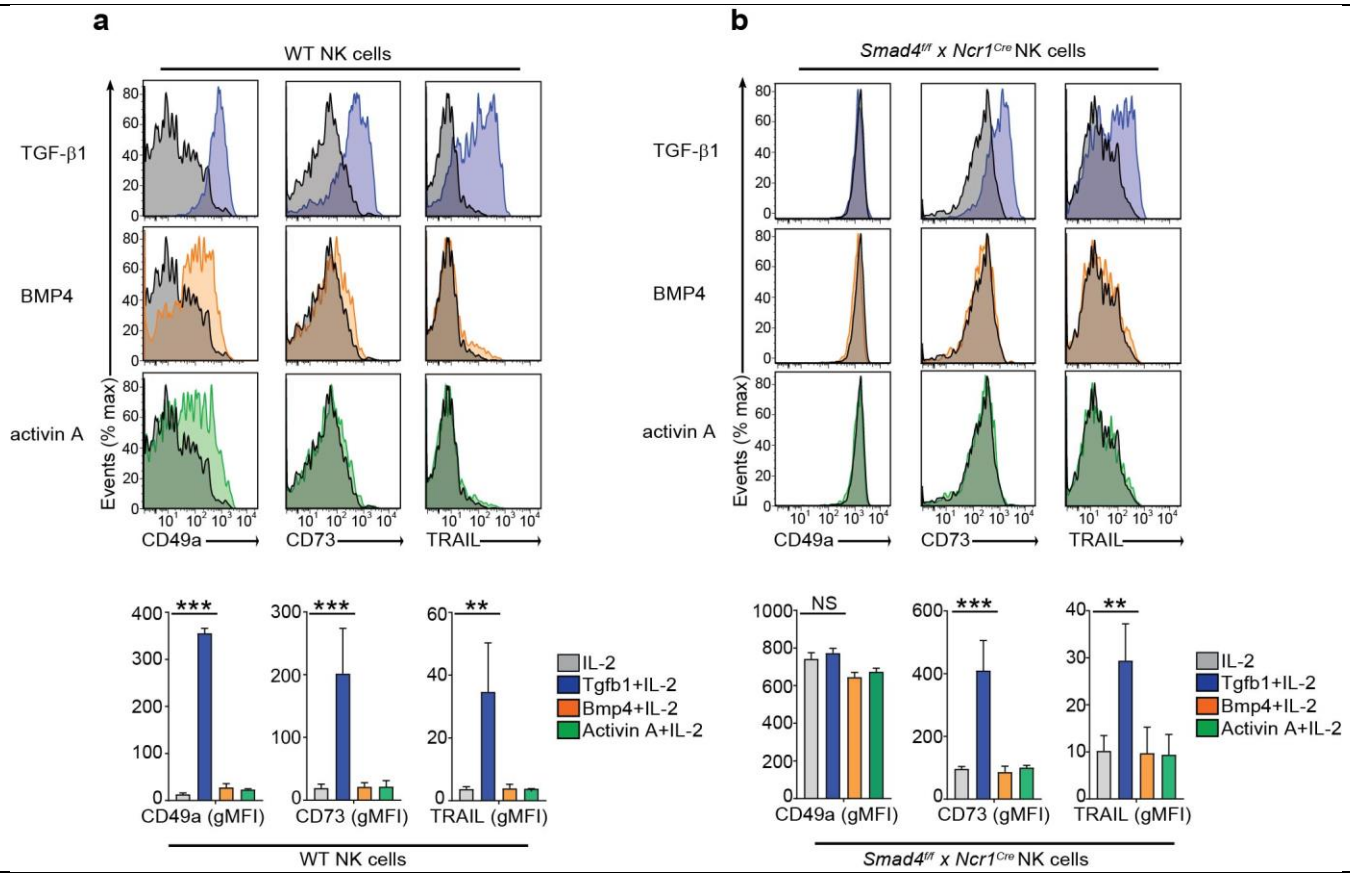
(**a**) Representative plots displaying pre-sort and post-sort purity of splenic NK cells from WT and SMAD4-deficient mice. (**b**) Quantification of surface expression of the indicated markers by splenic NK cells from WT and SMAD4-deficient mice. (**c**) Representative histograms showing expression of the indicated proteins by splenic NK cells from WT and SMAD4-deficient mice. (**d**) Representative plots and quantification of siLP ILC3 populations in WT and SMAD4-deficient mice. (**e**) Representative plots and quantification of intracellular IL-22 by siLP NKp46^{+} ILC3 after stimulation by IL-23. (**f**) Representative histograms of cell surface expression of CD49a in NKp46^{-} or NKp46^{+} NK cells from the bone marrow of WT and *Smad4$^{f/f}$ x Il7r^{Cre}* mice. ***P*<0.01, ****P* < 0.001; (unpaired Student's *t*-test). Data are pooled from four (**b**) or two (**d,e,f**) independent experiments with 1-2 mice of each genotype for each independent experiment (error bars represent mean ± s.d. in **b,d,e**).



Supplementary Figure 2

Apoptosis of WT and SMAD4-deficient NK cells during MCMV infection or *in vitro* culture.

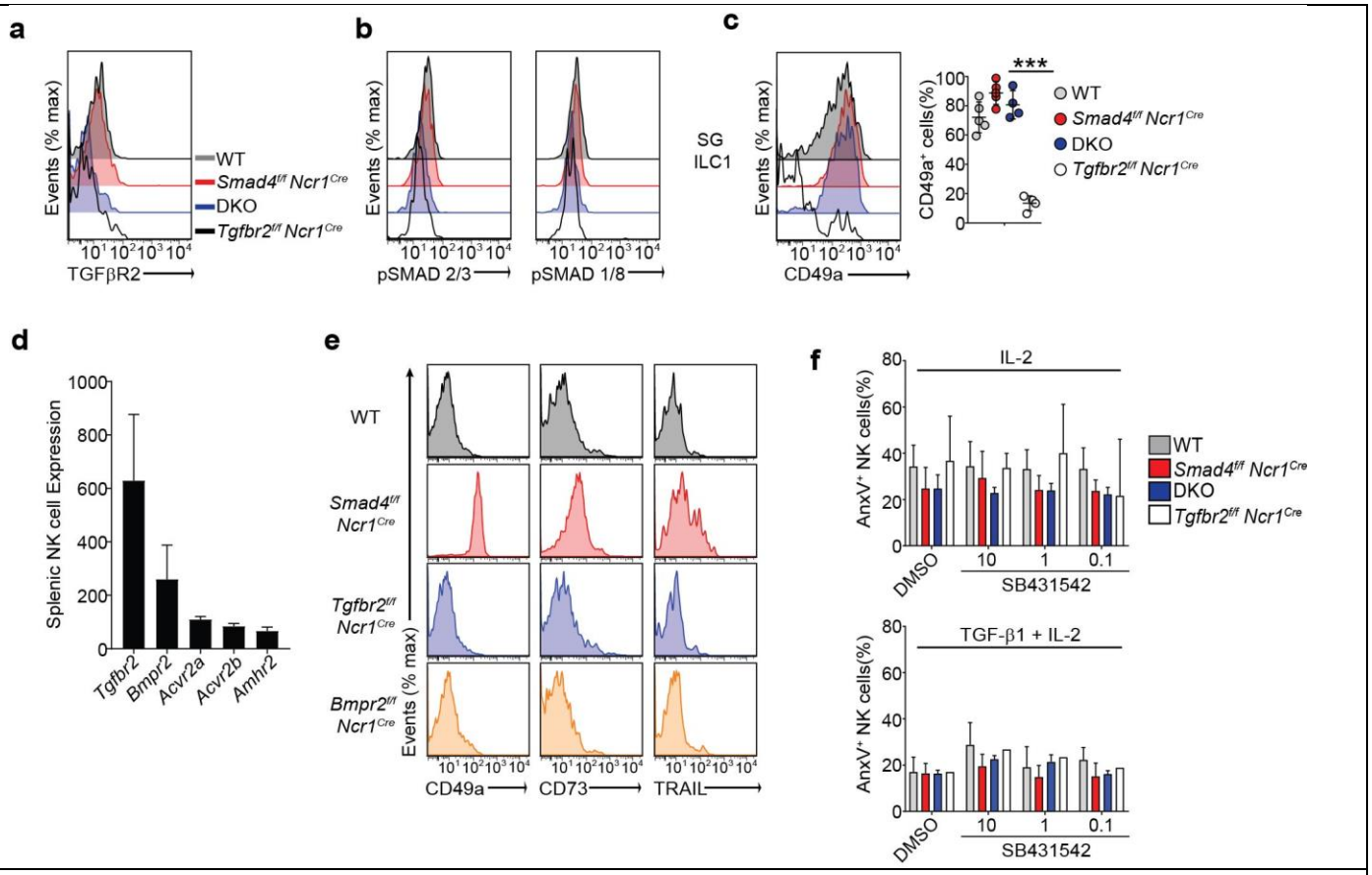
(**a**) Representative plots of Ly49H$^+$ and Ly49H$^-$ splenic NK cells (gated on CD3$^-$CD19$^-$) from naïve WT and *Smad4$^{f/f}$ x Ncr1^{iCre}* mice. (**b**) Ly49H$^+$ splenic NK cells from WT and *Smad4$^{f/f}$ x Ncr1^{iCre}* mice positive for Annexin V at days 3 and 6 of MCMV infection. (**c**) Splenic NK cells from WT and *Smad4$^{f/f}$ x Ncr1^{iCre}* mice positive for Annexin V ex vivo or after 24 and 48 h of culture with IL-2. Data are pooled (**b, c**) from two independent experiments with at least 1-2 mice of each genotype for each independent experiment (error bars represent mean ± s.d. in **b, c**).



Supplementary Figure 3

Culture of WT and SMAD4-deficient NK cells with TGF-β-family cytokines

Representative histograms and quantification of CD49a, CD73, and TRAIL surface expression by (**a**) WT and (**b**) SMAD4-deficient NK cells after 48 h of culture with TGF-β1 + IL-2, BMP4 + IL-2, activin A + IL-2, or IL-2 alone. ***P*<0.01, ****P* < 0.001 (unpaired Student's *t*-test). Data are pooled from three independent experiments with 1-2 mice of each genotype for each independent experiment (error bars represent mean ± s.d.).



Supplementary Figure 4

Impact of SMAD4, DKO, TGFβR2, and BMPR2 deficiency on conventional NK cells and SG ILC1.

(**a**) Representative histograms of TGFβR2 expression by splenic NK cells from WT, *Smad4$^{f/f}$ x Ncr1^{iCre}*, DKO, and *Tgfbr2$^{f/f}$ x Ncr1^{iCre}* mice *ex vivo*. (**b**) Representative histograms intracellular phospho-SMAD2/3 and phospho-SMAD1/8 in splenic NK cells after 60 min of culture with TGF-β1 and IL-2. (**c**) Representative histograms and quantification of CD49a expression by SG ILC1 from WT, *Smad4$^{f/f}$ x Ncr1^{iCre}*, DKO, and *Tgfbr2$^{f/f}$ x Ncr1^{iCre}* mice. (**d**) Relative gene expression of type II receptors by splenic NK cells of WT mice (Immgen.org). (**e**) Representative histograms of cell surface expression of CD49a, CD73, and TRAIL (after 48 h of culture with IL-2) by splenic NK cells from WT, *Smad4$^{f/f}$ x Ncr1^{iCre}*, *Tgfbr2$^{f/f}$ x Ncr1^{iCre}*, and *Bmpr2$^{f/f}$ x Ncr1^{iCre}* mice. (**f**) Quantification of Annexin V$^+$ NK cells from WT, *Smad4$^{f/f}$ x Ncr1^{iCre}*, DKO, and *Tgfbr2$^{f/f}$ x Ncr1^{iCre}* mice after 48 h of culture with IL-2 or TGF-β1 plus IL-2 and DMSO or SB431542. ***$P < 0.001$ (unpaired Student's *t*-test). Data are pooled from at least two independent experiments with 1-2 mice of each genotype for each independent experiment (error bars represent mean ± s.d.).