Supplementary figures

Figure S1



в



С



Figure S2

в



Α

NAME	NOM p-val	FDR q-val
GO_CYTOKINE_PRODUCTION_INVOLVED_IN_IMMUNE_RESPONSE	<0.001	0.048
GO_POSITIVE_REGULATION_OF_RESPONSE_TO_CYTOKINE_STIMULUS	<0.001	0.048
GO_REGULATION_OF_TUMOR_NECROSIS_FACTOR_SUPERFAMILY_CYTOKINE_PRODUCTION	<0.001	0.048
GO_POSITIVE_REGULATION_OF_TUMOR_NECROSIS_FACTOR_SUPERFAMILY_CYTOKINE_PRODUCTION	<0.001	0.048
GO_NEGATIVE_REGULATION_OF_CYTOKINE_PRODUCTION	<0.001	0.048
GO_POSITIVE_REGULATION_OF_CYTOKINE_PRODUCTION	<0.001	0.048
GO_CYTOKINE_SECRETION	<0.001	0.048
GO_CYTOKINE_PRODUCTION	<0.001	0.048
GO_REGULATION_OF_CYTOKINE_BIOSYNTHETIC_PROCESS	<0.001	0.048
GO_POSITIVE_REGULATION_OF_CYTOKINE_BIOSYNTHETIC_PROCESS	<0.001	0.048
GO_POSITIVE_REGULATION_OF_CYTOKINE_SECRETION	<0.001	0.056741
GO_REGULATION_OF_CYTOKINE_SECRETION	<0.001	0.056012
GO_NEGATIVE_REGULATION_OF_TUMOR_NECROSIS_FACTOR_SUPERFAMILY_CYTOKINE_PRODUCTION	<0.001	0.055396
GO_POSITIVE_REGULATION_OF_CYTOKINE_PRODUCTION_INVOLVED_IN_IMMUNE_RESPONSE	<0.001	0.071619
GO_REGULATION_OF_CYTOKINE_PRODUCTION_INVOLVED_IN_IMMUNE_RESPONSE	<0.001	0.081093
GO_CYTOKINE_MEDIATED_SIGNALING_PATHWAY	<0.001	0.079146
GO_REGULATION_OF_T_CELL_CYTOKINE_PRODUCTION	<0.001	0.095501

В



Gene Set: GO_NEGATIVE_REGULATION_OF_INNATE_IMMUNE_RESPONSE

Standard name	GO_NEGATIVE_REGULATION_OF_INNATE_IMMUNE_RESPONSE
Systematic name	M11125
Brief description	Any process that stops, prevents, or reduces the frequency, rate or extent of the innate immune response.
Full description or abstract	
Collection	C5: GO gene sets BP: GO biological process
Source publication	
Exact source	GO:0045824
Related gene sets	
External links	http://amigo.geneontology.org/amigo/term/GO:0045824
Organism	Homo sapiens
Contributed by	Gene Ontology (Gene Ontology Consortium)
Source platform	EntrezGeneIds
Dataset references	
Download gene set	format: grp text gmt gmx xml
Compute overlaps	(show collections to investigate for overlap with this gene set)
Compendia expression profiles 🖬	Human tissue compendium (Novartis) NCI-60 cell lines (National Cancer Institute)
Advanced guery	Further investigate these 38 genes
Gene families 🖥	Categorize these 38 genes by gene family
Show members	(show 38 members mapped to 38 genes)
Version history	5.2: First introduced

Figure S4







Supplementary figure legends

Supplementary figure 1 Characteristics of primary retinoblastoma cell line RBJY. (A) Representative images of RBJY cells after five passages. (B) Immunohistochemical staining of HE, CD56, and synaptophysin (SYN) in original tumor tissue. (C) Immunocytochemistry staining of CD56 and SYN in RBJY cells after five passages.

Supplementary figure 2 GD2 synthase is highly expressed in retinoblastoma. (A) RNA-sequencing peaks of the GD2 synthetase-encoding gene B4GALNT1 in normal retina (n=3) and retinoblastoma (n=3) samples. The red box indicates the accurate genomic location of B4GALNT1. (B) Relative mRNA expression of B4GALNT1 in normal retina and retinoblastoma samples. ***p < 0.001 by Student's t-test.

Supplementary figure 3 Pathways involved in the regulation of cytokines and the innate immune response in retinoblastoma. (A) GSEA demonstrates disturbed cytokines pathways in retinoblastoma versus retina samples. The results are listed in the table. (B) GSEA demonstrates a negatively regulated innate immune response in retinoblastoma versus retina samples. The NES and P value are listed on the enrichment plot.

Supplementary figure 4 Preliminary characterization of NK-92MI^{hCD16-GFP} cells. The stable cell line NK-92MI^{hCD16-GFP} was first gated with GFP, and then membrane-expressing CD16 was assessed using anti-CD16 Brilliant Violet 510.

Supplementary figure 5 Representative density plots of the cytotoxicity of NK-92MI^{hCD16-GFP} cells against WERI-Rb-1 cells and the primary cell cultures RBJY and SNPH-Rb-C24 assessed by FC. Tumor cells were labeled with CM-Dil. NK-92MI^{hCD16-GFP} cells were cocultured with a constant number of tumor cells at E:T ratios of 1:1, 5:1, and 10:1 in the absence or presence of dinutuximab. Apoptotic and dead cells were assessed by FC

using annexin V-APC and 7-AAD. Representative density plots of the cytotoxicity of NK-92MI^{hCD16-GFP} cells against WERI-Rb-1 (A), RBJY (B), and SNPH-Rb-C24 (C) cells at various E:T ratios in the absence or presence of dinutuximab.