

# Supplementary Information

## **A novel immunogenic mouse model of melanoma for the preclinical assessment of combination targeted and immune-based therapy**

Emily J. Lelliott<sup>1,2</sup>, Carleen Cullinane<sup>1,2</sup>, Claire A. Martin<sup>1</sup>, Rachael Walker<sup>1</sup>, Kelly M. Ramsbottom<sup>1</sup>, Fernando Souza-Fonseca-Guimaraes<sup>3,4</sup>, Shatha Abuhammad<sup>1</sup>, Jessica Michie<sup>1,2</sup>, Laura Kirby<sup>1</sup>, Richard J. Young<sup>1</sup>, Alison Slater<sup>1</sup>, Peter Lau<sup>1,2</sup>, Katrina Meeth<sup>5</sup>, Jane Oliaro<sup>1,2</sup>, Nicole Haynes<sup>1,2,6</sup>, Grant A. McArthur<sup>1,2,7</sup>, Karen E. Sheppard<sup>\*1,2,8</sup>

<sup>1</sup>Cancer Research Division, Peter MacCallum Cancer Centre, Melbourne, VIC, Australia

<sup>2</sup>Sir Peter MacCallum Department of Oncology, University of Melbourne, Melbourne, VIC, Australia

<sup>3</sup>Department of Medical Biology, University of Melbourne, Melbourne, VIC, Australia

<sup>4</sup>Division of Molecular Immunology, The Walter Eliza Hall Institute of Medical Research, Parkville, VIC, Australia

<sup>5</sup>Department of Pathology, Yale University School of Medicine, New Haven, CT, USA

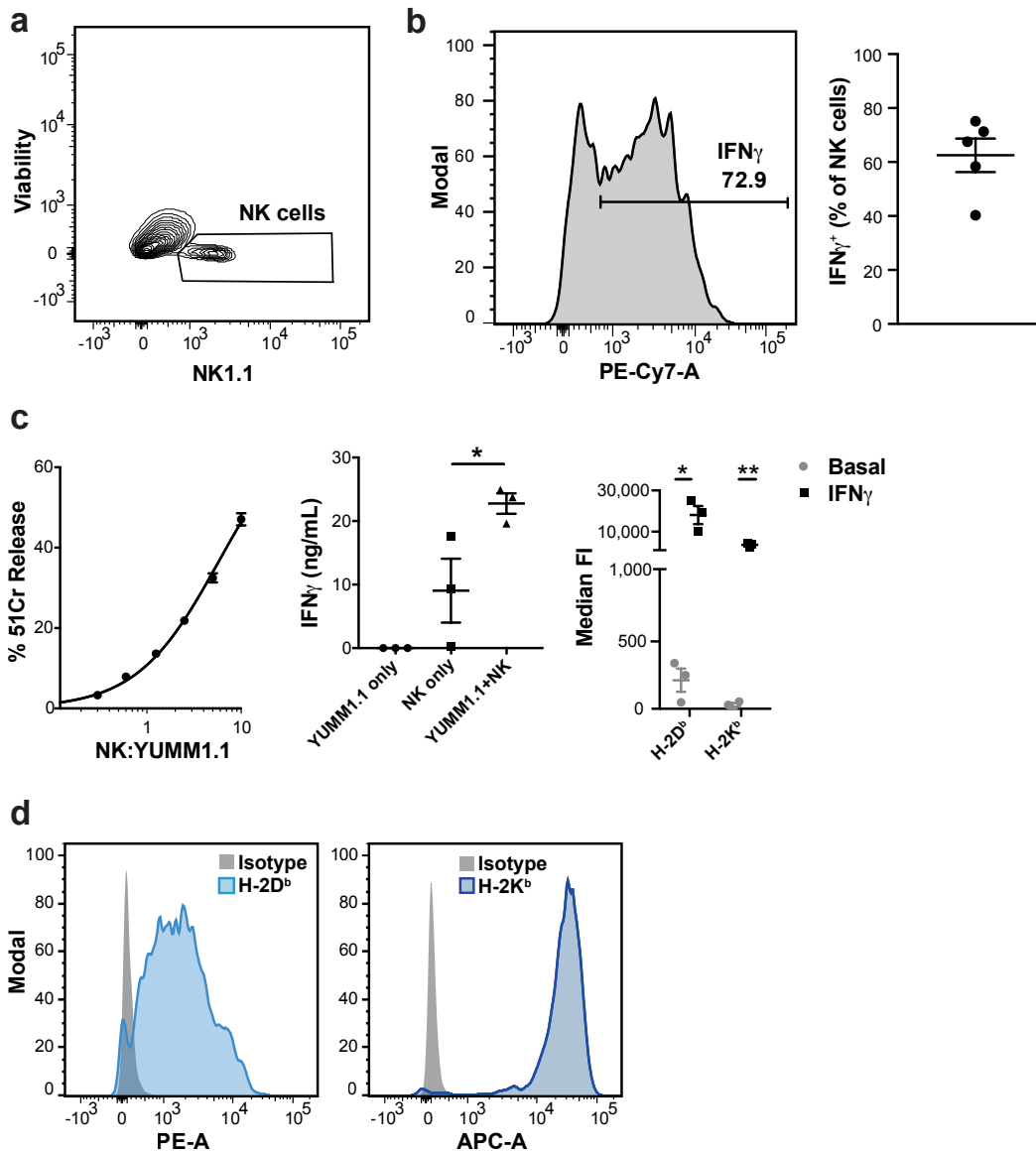
<sup>6</sup>Department of Pathology, University of Melbourne, Melbourne, VIC, Australia

<sup>7</sup>Department of Medicine, St Vincent's Hospital, University of Melbourne, Melbourne, VIC, Australia

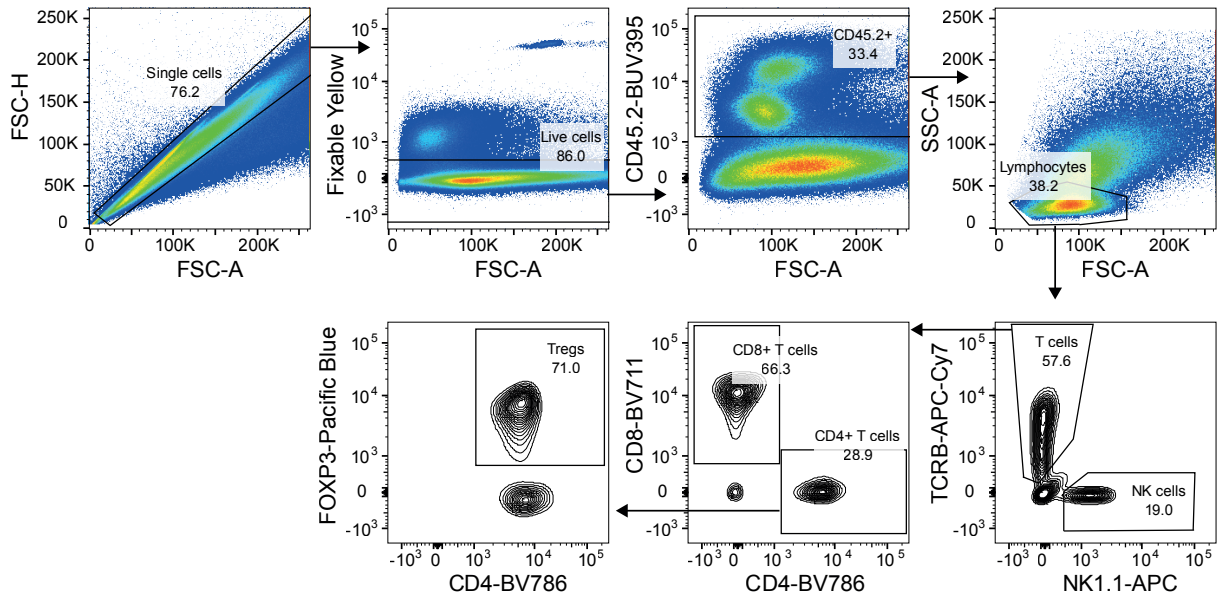
<sup>8</sup>Department of Biochemistry and Molecular Biology, University of Melbourne, Melbourne, VIC, Australia

\*Corresponding Author: Karen E. Sheppard

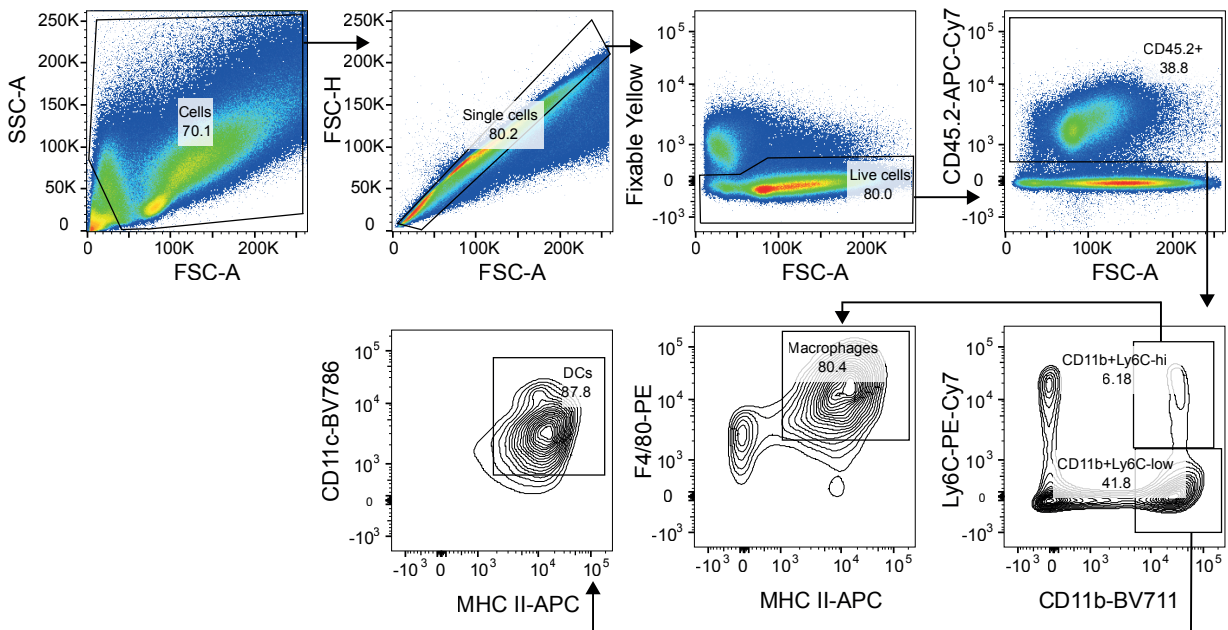
Email: [karen.sheppard@petermac.org](mailto:karen.sheppard@petermac.org); Phone: +61385596681



**Supplementary Figure 1. a-b**, NK cells (**a**) and IFN $\gamma$ -expressing NK cells (**b**) in YUMM1.1 tumors harvested from C57BL/6 mice, plots representative of n=5. **c**, Left panel - Killing by splenic-derived NK cells co-cultured for 4 hours with 51Cr-labelled YUMM1.1 cells at indicated ratios, representative of n=3. Middle panel - IFN $\gamma$  secretion by splenic-derived NK cells co-cultured for 4 hours with YUMM1.1 cells at a ratio of 2:1, IFN $\gamma$  secretion was measured by cytokine bead array, One way ANOVA, Tukey's multiple comparisons test, n=3. Right panel - MHC I expression on unstimulated (basal) and IFN $\gamma$ -stimulated YUMM1.1 cells in vitro, unpaired t test, n=3. **d**, MHC I expression on YUMM1.1 tumors harvested from C57BL/6 mice, representative of n=3. All error bars show  $\pm$ SEM. \*p<0.05, \*\*p<0.01.

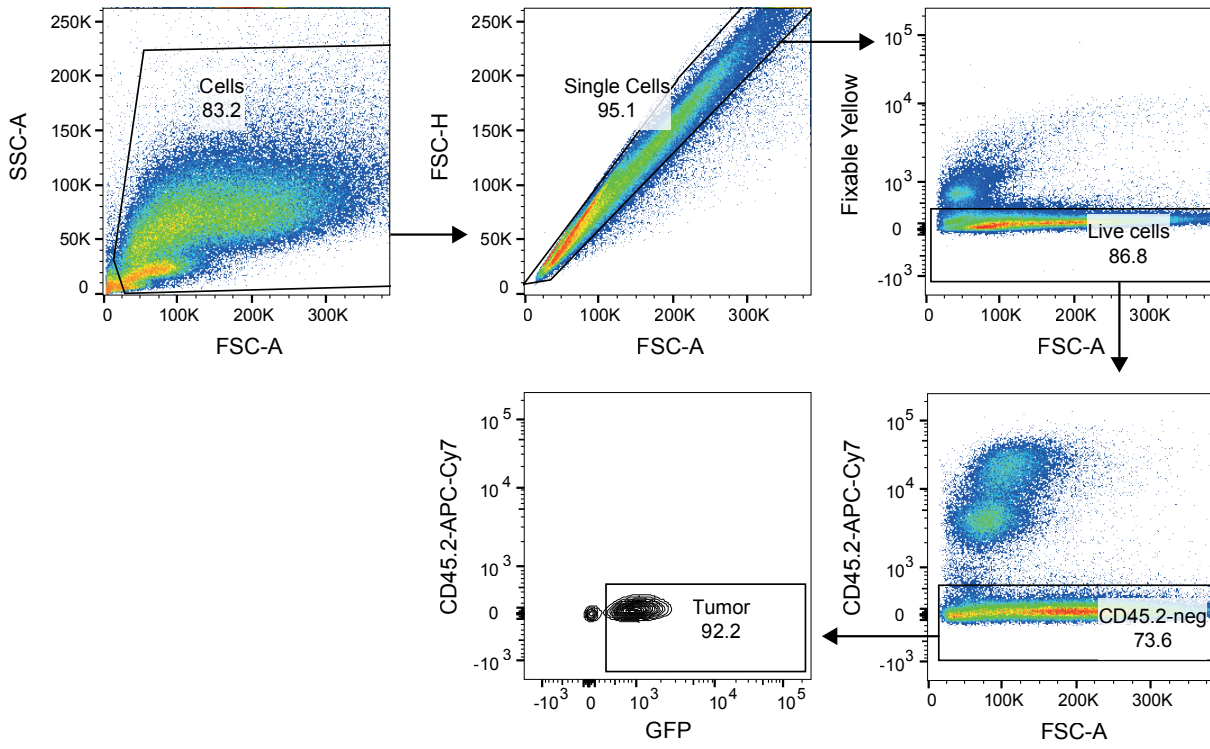


**Supplementary Figure 2.** Gating strategy on tumors for defining infiltrating CD8+ T cells, CD4+ T cells, regulatory T cells (Tregs) and NK cells.

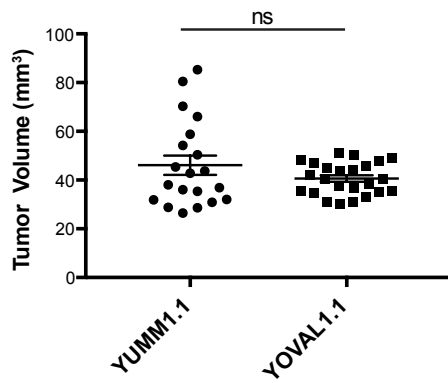


**Supplementary Figure 3.** Gating strategy on tumors for defining infiltrating macrophages and dendritic cells (DCs).

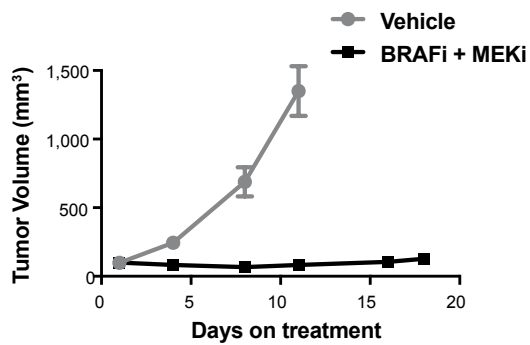
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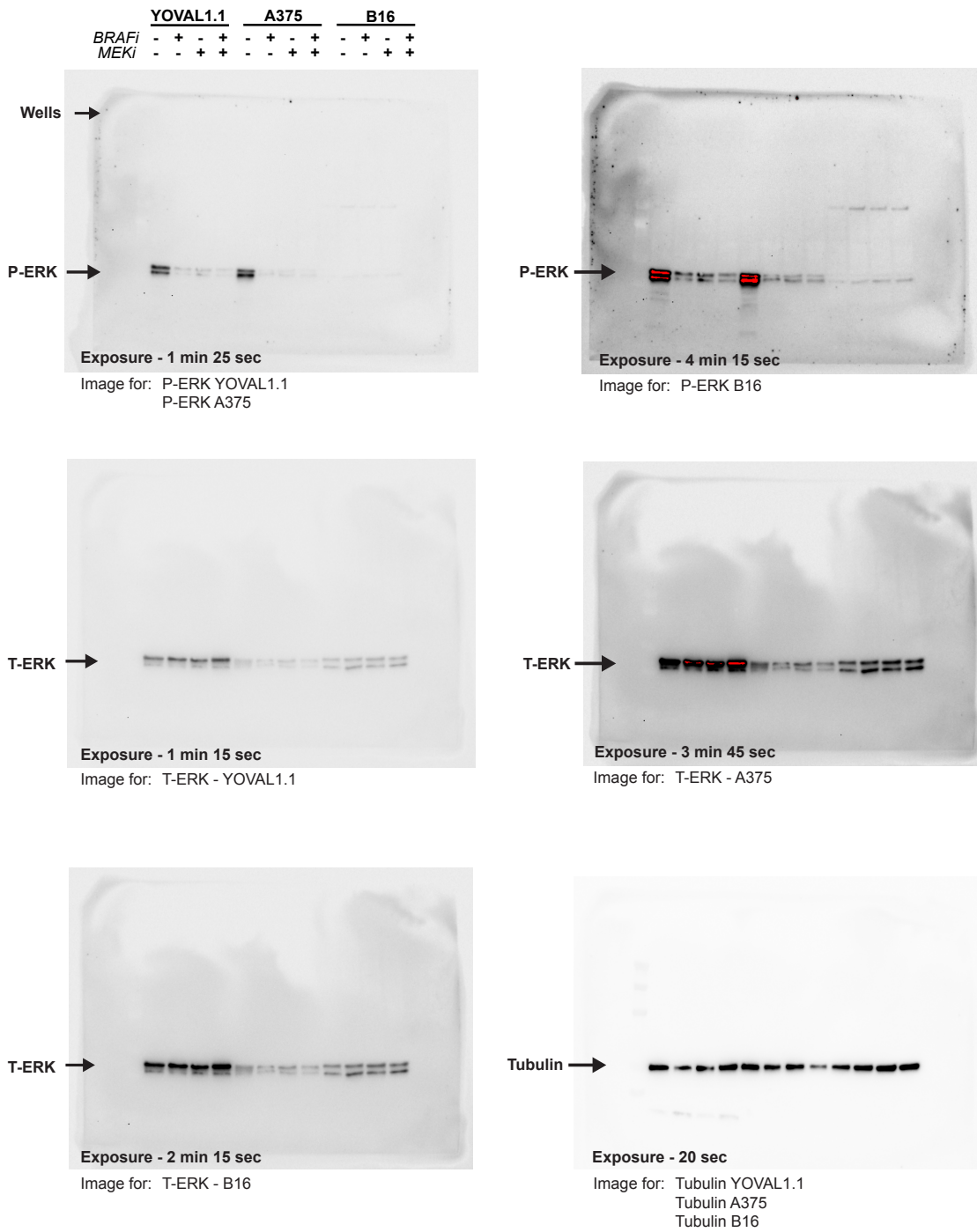
**Supplementary Figure 4.** Gating strategy for YOVAL1.1 tumor cells.



**Supplementary Figure 5.** Tumor volume at day 15 when immunotherapies were commenced. ns - not significant, unpaired t test, n=20-24. Error bars show  $\pm$ SEM.



**Supplementary Figure 6.** YUMM1.1 tumor growth in C57BL/6 mice treated daily, 6 days/week, with dabrafenib (BRAFi) plus trametinib (MEKi). Error bars show  $\pm$ SEM.



**Supplementary Figure 7.** Full-length blots used to compile Figure 4c. All images were cropped from different parts of the same blot at indicated exposure times. P-ERK - phosph-ERK; T-ERK - Total-ERK.