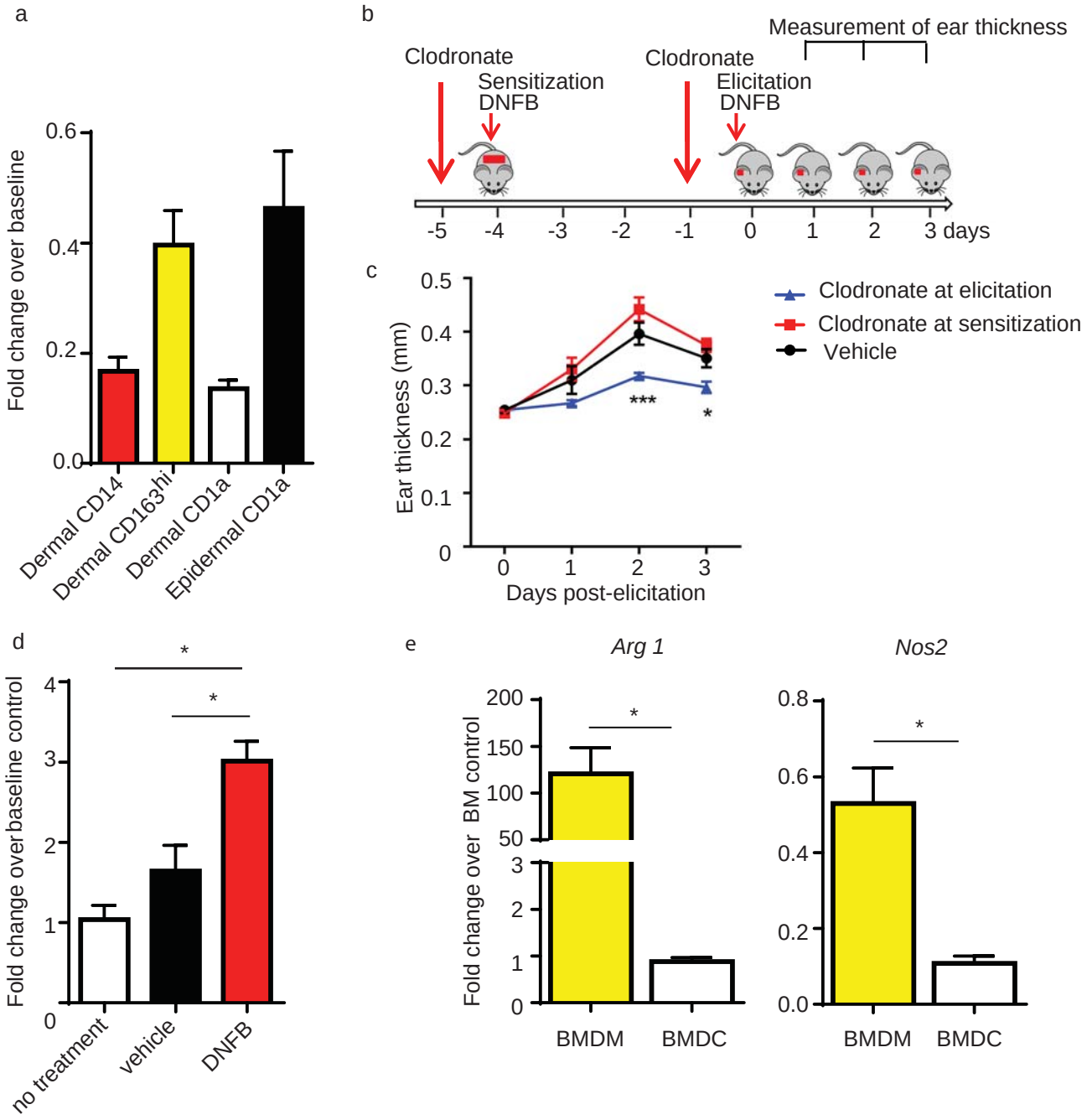
Supplementary Table 1. Oligos used for Real-time qPCR detection in this study

Species	Gene	5' - 3' Forward primer	5' - 3' Reverse primer	Citation
Human	*ARG1*	TGGACAGACTAGGAATTGGCA	CCAGTCCGTCAACATCAAAACT	(Primer Bank ID 346986433c3)
mouse and human	*GAPDH*	AGGTCGGTGTGAACGGATTTG	TGTAGACCATGTAGTTGAGGTCA	(1)
mouse	*Arg1*	CATGGGCAACCTGTGTCCTT	TCCTGGTACATCTGGGAACTTTC	(2)
mouse	*Nos2*	GACGAGACGGATAGGCAGAG	GTGGGGTTGTTGCTGAACTT	(3)
mouse	*Il6*	CCGGAGAGGAGACTTCACAG	TCCACGATTTCCCAGAGAAC	(4)

References

1. Cool, J., T. J. DeFalco, and B. Capel. 2011. Vascular-mesenchymal cross-talk through Vegf and Pdgf drives organ patterning. *Proc Natl Acad Sci U S A* 108: 167-172.
2. Tighe, R. M., E. N. Potts, F. Feng, Z. Li, B. Frush, Y. W. He, D. B. Corry, P. W. Noble, and J. W. Hollingsworth. 2011. Extracellular Matrix Protein Mindin is Required for the Complete Allergic Response to Fungal-Associated Proteinase. *J Allergy Ther* 2011.
3. Pollpeter, D., A. Komuro, G. N. Barber, and C. M. Horvath. 2011. Impaired cellular responses to cytosolic DNA or infection with Listeria monocytogenes and vaccinia virus in the absence of the murine LGP2 protein. *PloS one* 6: e18842.
4. Shi, Y., P. Rupa, B. Jiang, and Y. Mine. 2014. Hydrolysate from eggshell membrane ameliorates intestinal inflammation in mice. *Int J Mol Sci* 15: 22728-22742.

Figure S1



Supplemental Figure S1. Arg1 expression in myeloid cell subsets and in allergic contact hypersensitivity responses

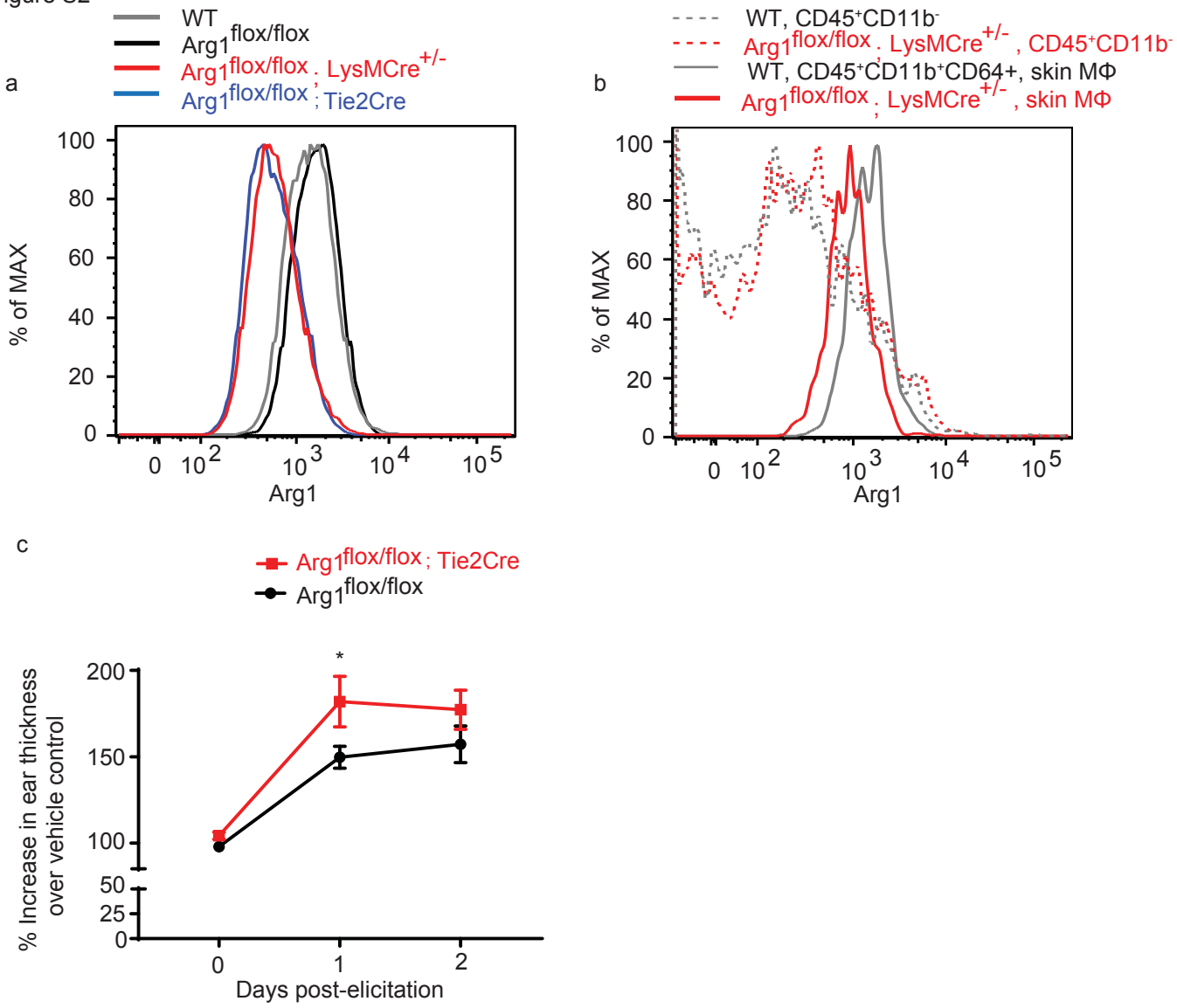
(a) Real-time qPCR analysis of Arg1 mRNA expression in epidermal $CD1a^+$ and dermal $CD14^+$, $CD163^+$, and $CD1a^+$ sorted cells of the skin from healthy human subjects. Data are presented as mean ± SEM from triplicate measurement and are representative of 2 samples.

(b,c) MΦ were depleted using clodronate at 24 hrs prior to sensitization or elicitation with DNFB. Mice treated with empty liposome were served as control. Ear swelling was measured and is depicted as mean ± SEM from 4-6 mice per tested condition, *p<0.05.

(d) Real-time qPCR analysis for Arg1 mRNA expression on murine FACS-sorted $CD45^+CD3^-CD11b^+F4/80^+Gr1^-$ cells 24 hrs *in vivo* after DNFB elicitation. Data are presented as mean ± SEM from triplicate measurement, pooled from 4-5 mice, *p<0.05,

(e) Real-time qPCR analysis of Arg1 and Nos2 mRNA expression on BM-derived macrophages (BMDM, M-CFS 10 ng/ml for six days) and BM-derived dendritic cells (BMDC, GM-CFS 5 ng/ml for six days). Data are summarized as mean ± SEM, *p<0.05, representative of 3 independent experiments.

Figure S2



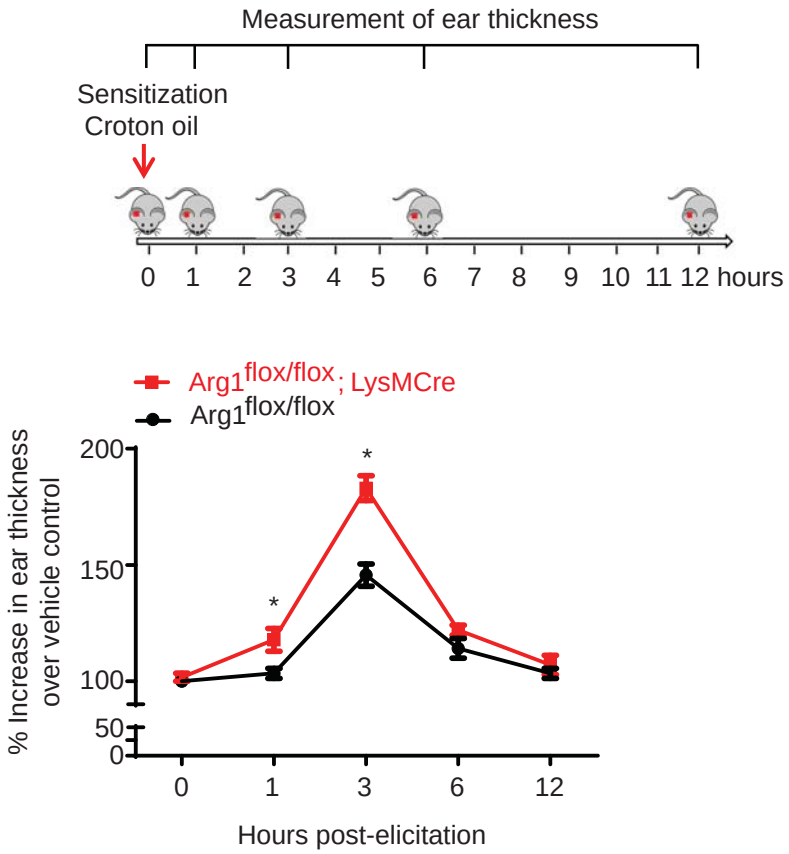
Supplemental Figure S2. Arg1 deletion in mono/MΦ

(a) Flow cytometry histogram of $Arg1^{flox/flox}$; Tie2Cre; $Arg1^{flox/flox}$; LysMCre; $Arg1^{flox/flox}$, and WT BMDM. Gated on $CD45^{+}F4/80^{+}CD11b^{+}$cells.

(b) Flow cytometry histogram on skin MΦ being $CD45^{+}CD3^{-}Ly6G^{-}CD161^{-}B220^{-}CD64^{+}CD11b^{+}$ and $CD45^{+}CD11b^{-}$ cells in $Arg1^{flox/flox}$; $LysMCre^{+/-}$ and WT mice

(c) $Arg1^{flox/flox}$; Tie2Cre and $Arg1^{flox/flox}$ were sensitized and elicited with DNFB. Ear swelling was measured daily and is depicted as mean ± SEM from 15-22 mice, *p<0.05

Figure S3



Supplemental Figure S3. Arg1 deletion in mono/MΦ increases ICD in vivo

$Arg1^{flox/flox}$; $LysMCre^{+/-}$ and $Arg1^{flox/flox}$; mice were treated with the irritant croton oil. Ear swelling is depicted as mean ± SEM from 6 mice per group, *$p<0.05$.