### Supplementary Fig 1.



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Supplementary Figure 1. LysM<sup>cre</sup>PKCδ<sup>flox/flox</sup> mice are indistinguishable from PKCδ<sup>flox/flox</sup> littermate control at the naive state. [A] Integrity of loxP-floxed PKCô and presence of LysMcre was confirmed in the genomic DNA extracted from the tail cuts of  $PKC\delta^{flox/flox}$  and Lys $M^{cre}PKC\delta^{flox/flox}$  mice. Representative agarose gel demonstrates the marker (m), wild-type (n/n), floxed PKCδ (fl/fl), LysM<sup>cre</sup>PKCδ<sup>flox/flox</sup> (LysMcre+), PKCδ<sup>flox/flox</sup> (LysMcre-), non-template control (NTC). [B] Gating strategy for lung sorted immune cells and confirmation of PKCS deletion in macrophages by qRT-PCR. [C] PKCS expression was determined in sorted immune cell populations by qRT-PCR. Expression levels are normalized to the endogenous housekeeping gene Hprt. [D-E] Deletion of PKCδ in bone- marrow derived macrophages was confirmed by qRT-PCR and western blot analysis. HPRT and GAPDH were used as a normalizing control in qRT-PCR and Western blot respectively. [F] Protein kinase C isoform-specific primers were used for expression analysis in ΡΚCδ deficient bone-marrow derived gene macrophages (LysM<sup>cre</sup>PKC $\delta$ <sup>flox/flox</sup>) as compared to the control (PKC $\delta$ <sup>flox/flox</sup>) by qRT-PCR. [G-M] Various lymphoid and myeloid immune populations were detected by flow cytometry in the lung [G-J] and spleen [K-M] in both PKCô<sup>flox/flox</sup> and LysM<sup>cre</sup>PKCô<sup>flox/flox</sup> mice. [N-Q] Determining cytokine levels in lung homogenates collected from PKC8<sup>flox/flox</sup> and LysM<sup>cre</sup>PKC8<sup>flox/flox</sup> mice. All data shown mean+/- SD and is representative of two independent experiments with n=4 mice/group. Statistical analyses were performed using an unpaired student t-test. Asterisks are defining significance compared to the control group as: \*\*p < 0.01, \*\*\*p < 0.001.



Supplementary Figure 2. Lung cell numbers, cytokine profiling, and immune cell phenotyping of LysM<sup>cre</sup>PKC $\delta^{flox/flox}$  mice during acute (4WPI) and chronic (12 WPI) *Mtb* infection. [A] Lung cell numbers and [B] weight index were determined at acute and chronic stage of *Mtb* infection. [C-H] Determining cytokine and chemokine levels in lung homogenates collected from PKC $\delta^{flox/flox}$  and LysM<sup>cre</sup>PKC $\delta^{flox/flox}$  mice at acute and chronic stage of *Mtb* infection. [I-S] Various myeloid and lymphoid immune cell populations were detected by flow cytometry at acute and chronic stage of *Mtb* infection. All data shown mean+/- SD and is representative of two independent experiments with n=4-6 mice/group. Statistical analyses were performed using an unpaired student t-test. Asterisks are defining significance compared to the control group as: \*p < 0.05, \*\*p < 0.01.

#### Supplementary Fig 3.



Supplementary Figure.3. PKC $\delta$  overexpression in RAW264.7 murine macrophages, determination of phagosome maturation in LysM<sup>cre</sup>PKC $\delta$ <sup>flox/flox</sup> BMDMs and murine PKC $\delta$  expression during *Mtb* infection (adapted from FANTOM5 CAGE database). [A] Lentivirusmediated overexpression of PKC $\delta$  in RAW264.7 murine macrophage cell line confirmed by ZOE fluorescence imaging, western blot, and qRT-PCR. [B] Determination of phagosome maturation (Relative fluorescence unit) based on pH change in the phagolysosomal compartment in bonemarrow-derived macrophages from LysM<sup>ere</sup>PKC $\delta$ <sup>flox/flox</sup> and PKC $\delta$ <sup>flox/flox</sup> mice. [C] Determining PKC $\delta$  expression in classically (IFNg-stimulated) or alternatively (IL-4 stimulated) activated murine macrophages utilizing publicly available FANTOM5 CAGE database. Asterisks are defining significance compared to the control group as: \*\*p < 0.01.

## Supplementary Fig 4.



Stacked Bar Chart of Average Ranks in Different Libraries



Supplementary Figure.4. Gene ontology, cytokine response (IREA), and ChEA analysis in the LysM<sup>cre</sup>PKC $\delta^{flox/flox}$  BMDMs at naive state. [A] Horizontal dot plots (Ora) detailing the association of enriched Gene Ontology (GO) biological processes are shown between LysM<sup>cre</sup>PKC $\delta^{flox/flox}$  and PKC $\delta^{flox/flox}$  BMDMs at 0 hr (uninfected) time point. [B] IREA cytokine enrichment plot showing the enrichment score (ES) for each of the cytokine response in LysM<sup>cre</sup>PKC $\delta^{flox/flox}$  BMDMs at 0 hr (uninfected) time point. Bar length is representing the ES with darker red (enriched in LysM<sup>cre</sup>PKC $\delta^{flox/flox}$  BMDMs) and darker blue (enriched in PKC $\delta^{flox/flox}$ BMDMs). [C] Horizontal bar chart representing the top ranked transcription factors at 0 hr (uninfected) time point according to their average integrated scores across all the libraries. All data shown are analysed and produced using R studio packages and appyters web-based software.

### Supplementary Fig 5.



Supplementary Figure.5. mRNA expression of GM-CSF and CSF2RA in LysM<sup>cre</sup>PKC $\delta^{flox/flox}$ BMDMs, mRNA expression of PKC $\delta$  in MDMs and siRNA mediated PKC $\delta$  knockdown efficiency in MDMs during *Mtb* infection. [A-B] mRNA expression of GM-CSF and CSF2RA in bone-marrow-derived macrophages from LysM<sup>cre</sup>PKC $\delta^{flox/flox}$  and PKC $\delta^{flox/flox}$  mice during *Mtb* infection at indicated time points. [C] mRNA expression of PRKCD in human monocyte-derived macrophages at indicated time points during *Mtb* infection. [D] siRNA mediated knockdown efficiency of PRKCD in human monocyte-derived macrophages during *Mtb* infection. Asterisks are defining significance compared to the control group as: \*p < 0.05, \*\*p < 0.01.

# Table S1.

Gene	Accession	Forward Primer	Reverse Primer
	number	(5'-3')	(5'-3')
Mouse	M69042	CTGGGTAACTTAACAAGACC	CTGCTAAATAACATGTTCGGTCC
РКСб			
Mouse	M18331	CATCGATCTCTCGGGATCATCG	CGGTTGTCAAATGACAAGGCC
РКСє			
Mouse	M62980	AGCTAGCCGTCTTCCACGAGACG	GGACGACGCAGGTGCACACTTG
РКСη		С	G
Mouse	D11061	AGCTAGCCGTCTTCCACGAGACG	GGACGACGCAGGTGCACACTTG
РКСӨ		С	G
Mouse	NM_009807	ACAAGGCACGGGACCTATG	TCCCAGTCAGTCCTGGAAATG
caspase			
1			
Mouse	NM_009807	AGAGGGCATGGAGTCAGAGA	GCCATGAGACATTAGCACCA
caspase			
11			
Mouse	NM_145827	ATTACCCGCCCGAGAAAGG	TCGCAGCAAAGATCCACACAG
NLRP3			
Mouse	NM_001013779	GTCACCAGTTCCTCAGTTGTG	CACCTCCATTGTCCCTGTTTTAT
AIM2			
Mouse	NM_008361	GCTTCAGGCAGGCAGTATC	AGGATGGGCTCTTCTTCAAAG
IL-1β			
Mouse	NM_008360	ACTTTGGCCGACTTCACTGT	GGGTTCACTGGCACTTTGAT
IL-18			
Mouse	XM_006532127	ACCACCTATGCGGATTTCAT	TCATTACGCAGGCACAAAAC
GM-			
Mouse	NM_009970	ACGIGGCGCGAIGCAI	ACTIGICACIGCIGGGGGGGGG
CSF2KA			
Mouse	NIM 011109		
inos	INIM_011198	AULUILALLIALIILLIG	CAATUTUIGUUTATUUGTUTU
Human	107960		CTTCCCATACCTCCCCTTCTTC
	LU/860	CAUCATUTICCAGAAAGAACG	CITGULATAGGIUUUGIIGIIG
rkkud			