

Supplemental material

Lee et al., <https://doi.org/10.1084/jem.20180589>

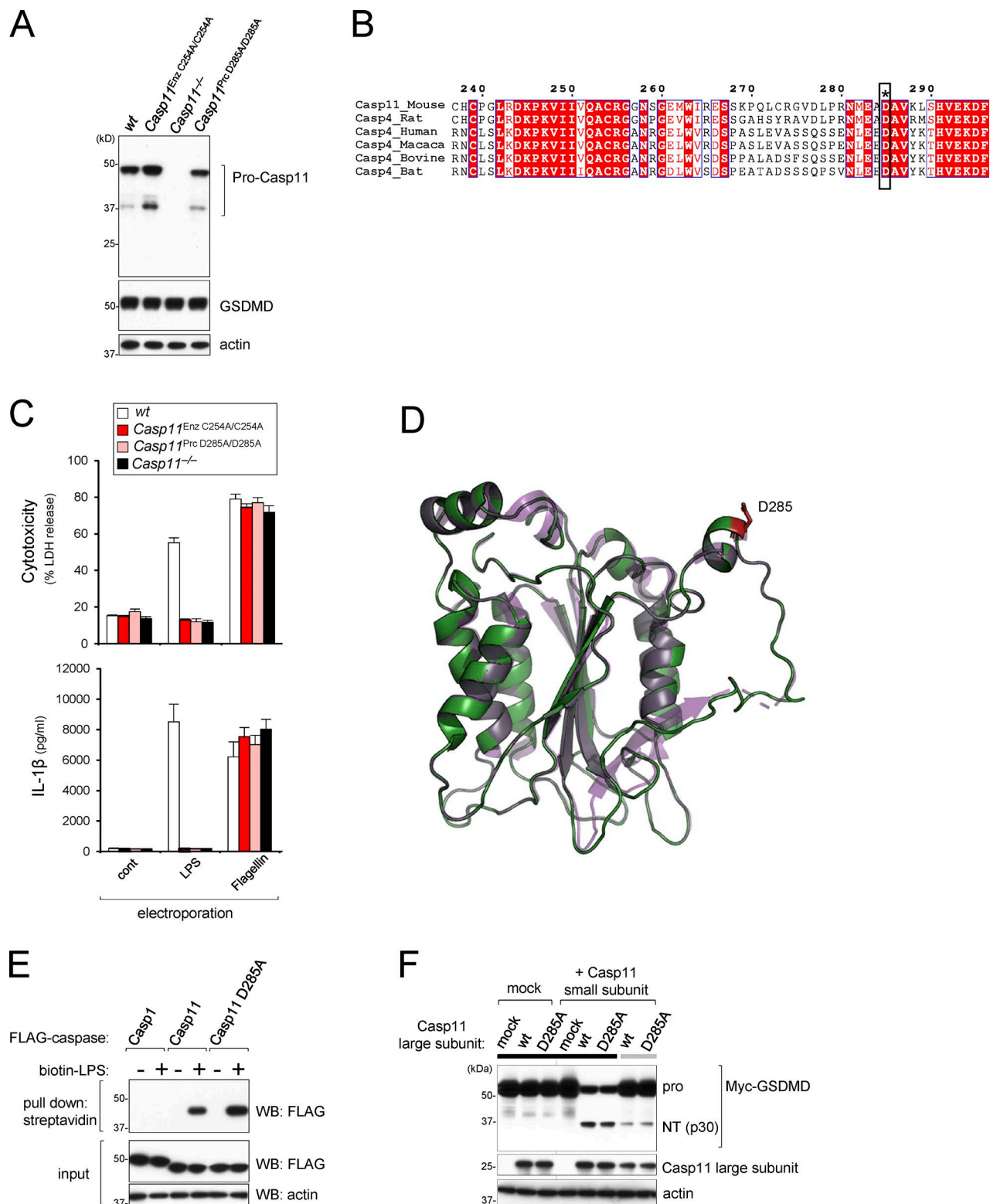


Figure S1. **Characterization of caspase-11 mutants.** (A) Immunoblot of caspase-11 cell extracts from WT, *Casp11*^{-/-}, *Casp11*^{Enz C254A/C254A}, and *Casp11*^{Prc D285A/D285A} BMDMs incubated with 1 μ g/ml Pam3CSK4 for 5 h. (B) Multiple sequence alignment of caspase-4/11. Conserved P₁ residue (Asp₂₈₅ in mouse) is boxed and marked with an asterisk. (C) LDH and IL-1 β release measured from supernatants of BMDMs (prestimulated with 1 μ g/ml Pam3CSK4 for 5 h) following electroporation by AMAXA 4D with LPS or flagellin after 16 h. (D) Molecular model of caspase-11. Caspase-11 is shown in green, the Asp₂₈₅ residue in red, and caspase-1 template outlined in purple. (E) Immunoblots of streptavidin pull-downs in the presence or absence of biotin-LPS with HEK293T lysates expressing indicated constructs. (F) Immunoblots of HEK293T cells cotransfected with 20 ng (black bar) or 5 ng (gray bar) each of indicated plasmids. Mock: vector alone control. Data are representative of at least two independent experiments (A, C, E, and F) and presented as mean \pm SD ($n = 3$) in C.

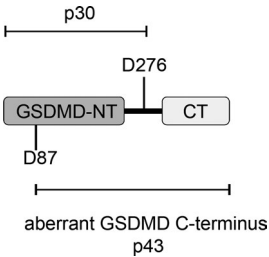


Figure S2. **Schematic of GSDMD.** Mouse GSDMD N-terminus (NT) and C-terminus (CT) are represented along with predicted cleavage sites at D87 (caspase-3) and D276 (caspase-1/4/5/11).

A

Group	-Group	Adjusted p-value
Wt	<i>Casp11</i> ^{-/-}	0.0003
Wt	<i>Casp11</i> ^{Enz C254A/C254A}	0.0003
Wt	<i>Casp11</i> ^{PrC D285A/D285A}	0.0003
<i>Casp11</i> ^{-/-}	<i>Casp11</i> ^{Enz C254A/C254A}	0.4422
<i>Casp11</i> ^{-/-}	<i>Casp11</i> ^{PrC D285A/D285A}	1
<i>Casp11</i> ^{Enz C254A/C254A}	<i>Casp11</i> ^{PrC D285A/D285A}	0.4422

B

Group	-Group	Adjusted p-value
Wt	<i>Gsdmd</i> ^{-/-}	0.0009
Wt	<i>Gsdmd</i> ^{D276A/D276A}	0.0003
<i>Gsdmd</i> ^{-/-}	<i>Gsdmd</i> ^{D276A/D276A}	0.7434

C

	gRNA target sequence	Donor oligo
<i>Casp11</i> ^{Enz C254A/C254A}	ATCATTGTGCAGGCCTGCAG	AGATGTGCTACAGTATGATACCATCTATCAGATATTCAACAAT TGCCACTGTCCAGGTCTACGAGACAAACCCAAGGTaATaTa GTcCAGGCCgccAGAGGTGGTAAGTTCTTTGGTGAACACAG AACTCCCACGCTGCTGGCTATGCAGGTGCTGGCAGGGTAAT GC
<i>Gsdmd</i> ^{D276A/D276A}	CTCATCAATCCCATCTGGA	CTGCTCCCTGGATCTACCCGCTCCTAACTCCAGTTCCTCAAG ACCTCACAGGCTGCCTGCCCTCTGTCCCTCCAGcgGGcATTG ATGAGGAGGAATTAATTGAGCGGCAGACTTCAGGGCCTG TATGCTGAGGTGAAGGCTTGCTCCTCAGAA

Figure S3. **Statistical analysis for *in vivo* mouse studies and additional KI mouse details.** (A and B) Adjusted P values of Fig. 4 A (A) and Fig. 4 C (B). Statistical analysis was performed with log-rank (Mantel-Cox) tests, and P values were adjusted to account for multiple comparisons using Bonferroni's correction. (C) gRNA target sequences and donor oligos for KI mice.