

## *Supplementary Material*

### **Type I Interferon Induced by *Streptococcus suis* Serotype 2 is Strain-Dependent and May Be Beneficial for Host Survival**

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#### **Supplementary Table**

**Table S1.** Primer sequences used for real-time qPCR

#### **Supplementary Figures**

**Figure S1.** Intermediate virulent *Streptococcus suis* ST25 strains induce high levels of IFN- $\beta$  expression by dendritic cells

**Figure S2.** Ligands of the different Toll-like receptors evaluated in this study, with the exception of TLR2, induce IFN- $\beta$  by dendritic cells

**Figure S3.** IL-6 and CXCL1 induced by *Streptococcus suis* and bacterial TLR2 ligands partially require TLR2 expression by dendritic cells

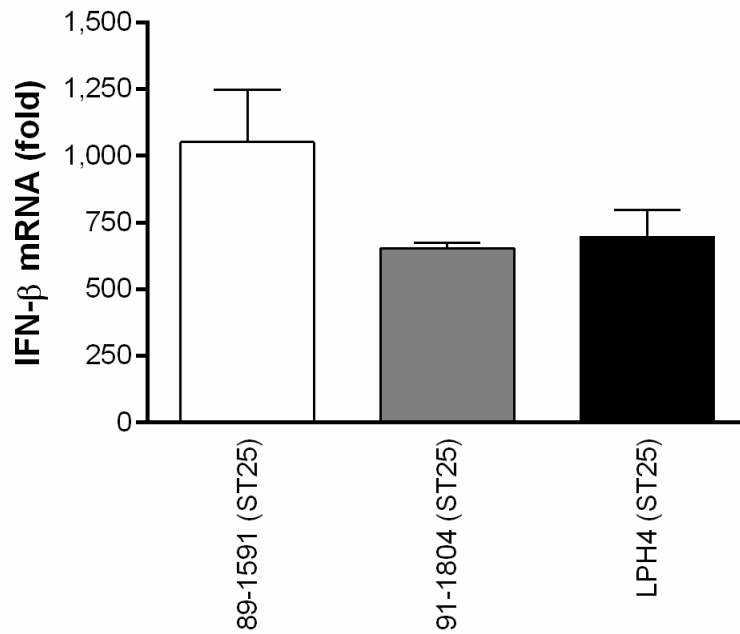
**Figure S4.** The intermediate virulent *Streptococcus suis* strain 89-1591 is highly encapsulated

**Figure S5.** *Streptococcus suis*-induced IL-6 and CXCL1 expression by dendritic cells is partially internalization-dependent

**Table S1. Primer sequences used for real-time qPCR.**

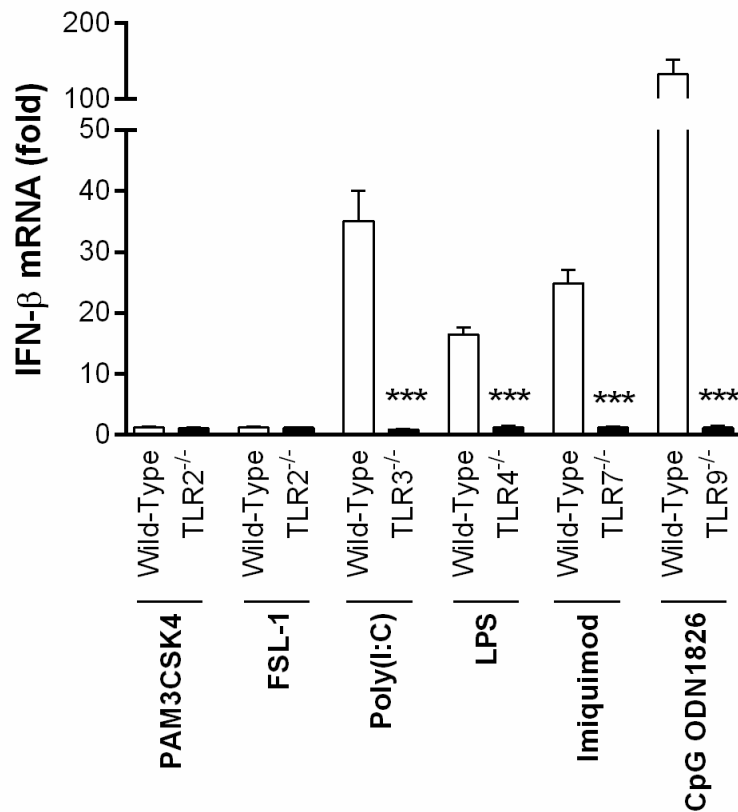
<b>Gene</b>	<b>Forward (F) and reverse (R) primers</b>
<i>Atp5b</i>	F: ACC AGC CCA CCC TAG CCA CC R: TGC AGG GGC AGG GTC AGT CA
<i>Gapdh</i>	F: CCC GTA GAC AAA ATG GTG AAG R: GAC TGT GCC GTT GAA TTT G
<i>Ifnb</i>	F: CCC AGT GCT GGA GCC ATT GT R: CCC TAT GGA GAT GAC GGA GA
<i>Irf1</i>	F: AGG CAT CCT TGT TGA TGT CC R: AAT TCC AAC CAA ATC CCA GG
<i>Irf3</i>	F:GAT GGC TGA CTT TGG CAT CT R: ACC GGA AAT TCC TCT TCC AG
<i>Irf7</i>	F: AGC ATT GCT GAG GCT CAC TT R: TGA TCC GCA TAA GGT GTA CG
<i>Il6</i>	F: ATG GTA GCT ACC AAA CTG GAT R: TGA AGG ACT CTG GCT TTG TCT
<i>Cxcl1</i>	F: TCT CCG TTA CTT GGG GAC AC R: CCA CAC TCA AGA ATG GTC GC

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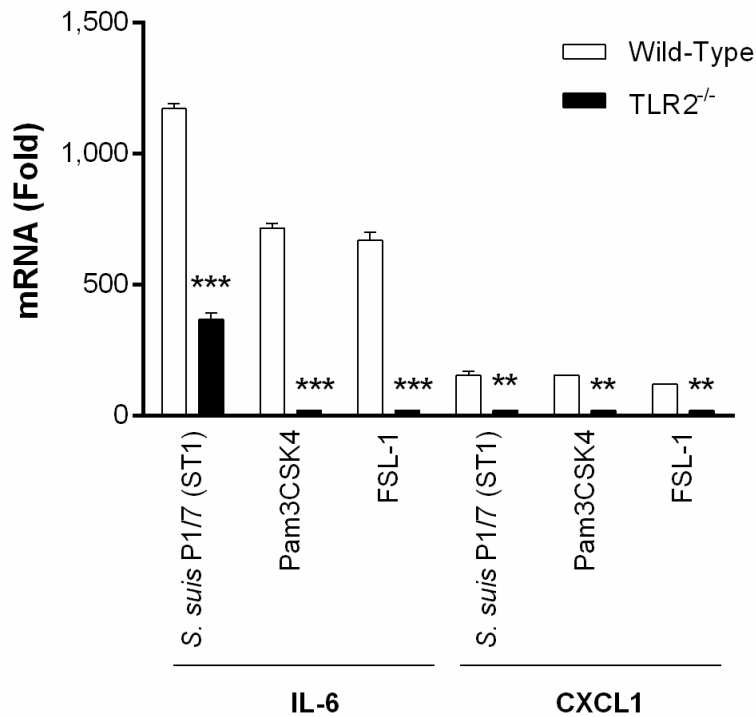
**Figure S1. Intermediate virulent *Streptococcus suis* ST25 strains induce high levels of IFN- $\beta$  expression by dendritic cells.** IFN- $\beta$  mRNA expression by dendritic cells 6 h following infection with the intermediate virulent ST25 strains 89-1591, 91-1804, and LPH4. Virulence of strains 91-1804 and LPH4 was previously described. Data represent the mean  $\pm$  SEM (n = 4).

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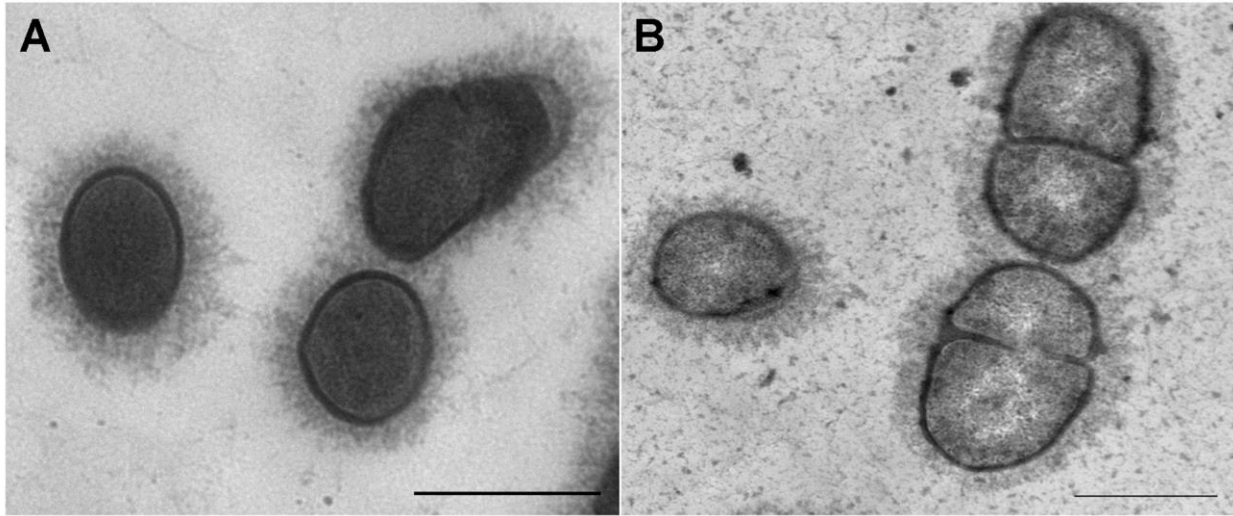


**Figure S2. Ligands of the different Toll-like receptors (TLRs) evaluated in this study, with the exception of TLR2, induce IFN-β by dendritic cells.** IFN-β mRNA expression by wild-type and deficient dendritic cells 6 h following activation with the different TLR ligands: 1 μg/mL PAM3CSK4 (TLR1/2), 1 μg/mL FSL-1 (TLR2/6), 10 μg/mL poly(I:C) (TLR3), 100 ng/mL lipopolysaccharide (LPS) (TLR4), 5 μg/mL imiquimod (TLR7), and 1 μM CpG ODN1826 (TLR9). Data represent the mean ± SEM (n = 4). \*\*\* ( $p < 0.001$ ) indicates a significant difference in IFN-β expression by wild-type and deficient dendritic cells.

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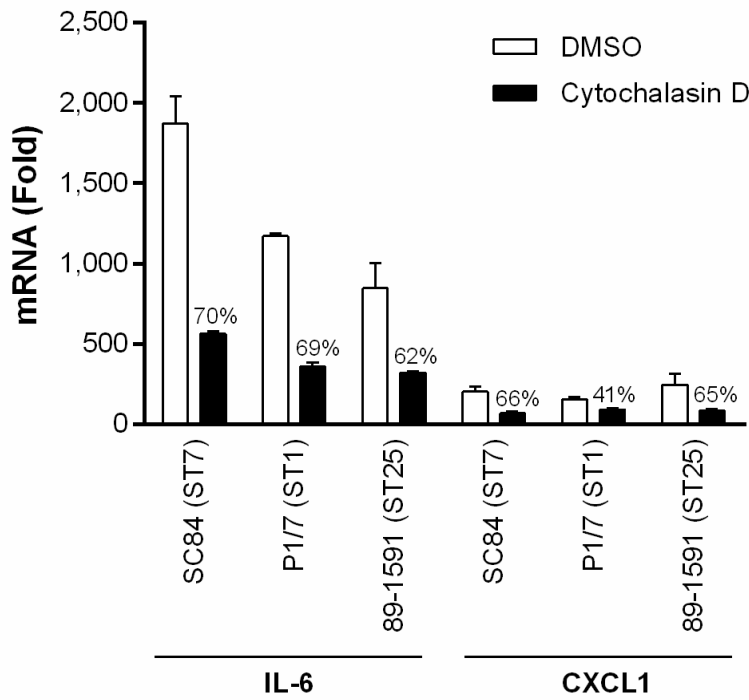


**Figure S3. IL-6 and CXCL1 induced by *Streptococcus suis* and bacterial TLR2 ligands partially require TLR2 expression by dendritic cells.** IL-6 and CXCL1 expression by wild-type or TLR2<sup>-/-</sup> dendritic cells 6 h following infection with *S. suis* ST1 strain P1/7 or activation with the TLR2 ligands PAM3CSK4 (1 µg/mL) and FSL-1 (1 µg/mL). Data represent the mean ± SEM (n = 3). \*\* ( $p < 0.01$ ) and \*\*\* ( $p < 0.001$ ) indicate a significant difference between expression by wild-type and TLR2<sup>-/-</sup> dendritic cells.



**Figure S4. The intermediate virulent *Streptococcus suis* strain 89-1591 is highly encapsulated.** Transmission electron micrographs following antibody stabilization of the capsular polysaccharide, using an anti-*S. suis* serotype 2 rabbit serum of ST1 strain P1/7 (A) and ST25 strain 89-1591 (B). Black bars = 1  $\mu$ m.

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**Figure S5. *Streptococcus suis*-induced IL-6 and CXCL1 expression by dendritic cells is partially internalization-dependent.** IL-6 and CXCL1 expression by dendritic cells pretreated with cytochalasin D (5  $\mu$ M) to inhibit actin polymerization 6 h following infection with *S. suis*. Mock-treated cells (DMSO) were used as controls. Data represent the mean  $\pm$  SEM (n = 3). The percentages of cytochalasin D-mediated inhibition of cytokine expression are indicated.

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