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Response of the cDC1 and cDC2 subtypes of tracheal dendritic cells to porcine reproductive and respiratory syndrome virus

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Highlights

- - cDC1 and cDC2 subtypes of cDCs from the trachea were exposed to PRRSV.
- - A differential cytokine and TLR mRNA expression was observed in response to PRRSV, and cDC1 and cDC2 were not susceptible to PRRSV infection
- - PRRSV did not infect *bona fide* cDCs, but could differentially modulate the cytokine and TLR expression

Abstract

Porcine reproductive and respiratory syndrome virus (PRRSV) is the most important disease affecting the swine industry worldwide. Although monocytes and macrophages, especially tissue-resident and alveolar macrophages, are the primary target of PRRSV, monocyte- and bone marrow-derived dendritic cells (DCs) are also susceptible to PRRSV infection. It has been shown that lung DCs cannot be infected with PRRSV, but the response and susceptibility of *bona fide* conventional DC subtypes (cDCs; cDC1 and cDC2) is unknown. In this work, evaluation of the response of