



The scavenger receptors SRA-1 and SREC-I cooperate with TLR2 in the recognition of the hepatitis C virus non-structural protein 3 by dendritic cells

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Résumé en anglais	<p>Backgrounds & AimsThe hepatitis C virus NS3 protein is taken up by myeloid cells in a TLR2-independent manner and activates myeloid cells via TLR2. This study aimed to identify the endocytic receptor(s) involved in the uptake of NS3 by myeloid cells and its relation with TLR2. Methods Inhibitors and transfected cells were used to identify the nature of the NS3-binding receptors expressed by myeloid cells. The cooperation between scavenger receptors (SRs) and TLR2 in the NS3-mediated activation of myeloid cells was evaluated using inhibitors, cells from TLR2^{-/-} mice, and confocal microscopy. The involvement of SRs in NS3 cross-presentation was evaluated in vitro using an NS3-specific human T-cell clone. Results We observed that SRs are the main binding structures for NS3 on myeloid cells and identified the SRs SRA-1 and SREC-I as endocytic receptors for NS3. Moreover, both SRs and TLR2 cooperate in NS3-induced myeloid cell activation. Conclusion This study highlights a central role for SRs in NS3 uptake and cross-presentation, and demonstrates a tightly orchestrated cooperation between signalling and endocytic innate receptors in NS3 recognition.</p>
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Liens

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