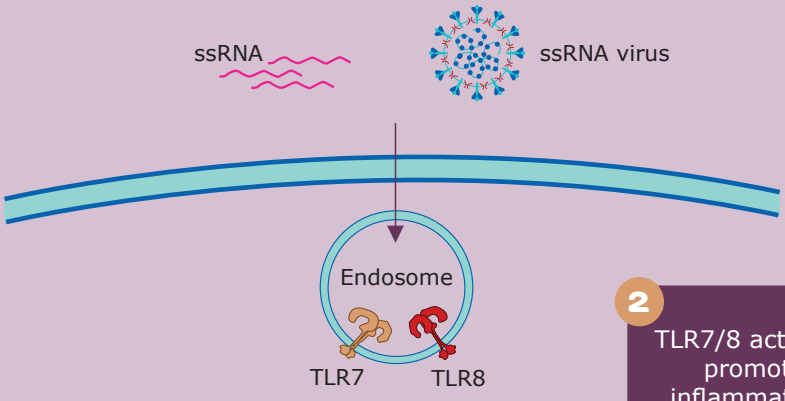
EMD SERONO

Toll-like receptors 7 and 8

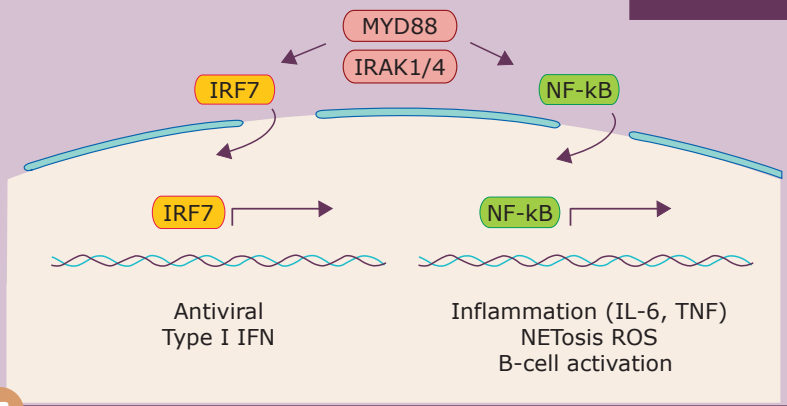
TLR7/8 can sense ssRNA viruses and are implicated in the pathogenesis of autoimmune disease by recognition of self-molecules[1,2]

1



2

TLR7/8 activation promotes inflammation[1,2]



3

Aberrant TLR7/8 activation is thought to be involved in SLE and CLE pathogenesis and glucocorticoid resistance[2,3]

Figure developed based on information from Klopp-Schulze L et al. Clin Pharmacol Ther 2022;112:297–306; Brown GJ et al. Nature 2022;605:349–56; Murphy M et al. Eur J Immunol 2017;47:880–91

CLE, cutaneous lupus erythematosus; IFN, interferon; IL-6, interleukin-6; IRAK1/4, interleukin receptor-associated kinases 1 and 4; IRF7, interferon regulatory factor 7; MYD88, myeloid differentiation primary response 88; NETosis, neutrophil extracellular trap cell death; ROS, reactive oxygen species; NF-κB; nuclear factor-kappa B; SLE, systemic lupus erythematosus; ssRNA, single-stranded ribonucleic acid; TLR, Toll-like receptor; TNF, tumour necrosis factor

References:

1. Klopp-Schulze L et al. Clin Pharmacol Ther 2022;112:297–306
2. Bender AT et al. Immunohorizons 2020;4:93–107
3. Guiducci C et al. Nature 2010;465:937–41

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