RN-486 is an inhibitor of Bruton's tyrosine kinase (Btk) that is currently in development as a potential treatment for rheumatoid arthritis; it exhibits anti-inflammatory, nephroprotective, and immunosuppressive activities. RN-486 decreases production of IL-6 and expression of IL-8, TNF, MMP1, and MMP10 in synovial tissue. In animal models of systemic lupus erythematosus (SLE), RN-486 inhibits B-cell activation and anti-double-stranded DNA IgG production, suppressing progression of glomerulonephritis. In other animal models, this compound inhibits mast cell degranulation, preventing type I and III hypersensitivity responses and limiting joint and systemic inflammation. RN-486 also decreases TLR-9 signaling and cytokine production.

References

