

Increased production of soluble TLR2 by lamina propria mononuclear cells from ulcerative colitis patients

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Toll-like receptor 2 (TLR2) is a type I pattern recognition receptor that has been shown to participate in intestinal homeostasis. Its increased expression in the lamina propria has been associated with the pathogenesis in inflammatory bowel disease (IBD), such as ulcerative colitis (UC) and Crohn's disease (CD). Recently, soluble TLR2 (sTLR2) variants have been shown to counteract inflammatory responses driven by the cognate receptor. Despite the evident roles of TLR2 in intestinal immunity, no study has elucidated the production and cellular source of sTLR2 in IBD. Furthermore, an increase in the population of activated macrophages expressing TLR2 that infiltrates the intestine in IBD has been reported. We aimed first to assess the production of the sTLR2 by UC and CD organ culture biopsies and lamina propria mononuclear cells (LPMCs) as well as the levels of sTLR2 in serum, and then characterize the cell population from lamina propria

producing the soluble protein. Mucosa explants, L