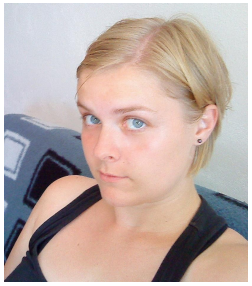
ImmunoTools IT-Box-Cy55M-Award 2013



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Molecular mechanisms of the anti-inflammatory effects of probiotic bacteria

The worldwide interest of immunology is focused on chronic inflammatory disorders of the gastrointestinal tract. They are commonly called Inflammatory Bowel Disease (IBD), including mainly Ulcerative Colitis (UC) and Crohn's disease (CD); both with yet not fully revealed etiology and so on the chopping block of contemporary science. It has been widely accepted fact that both are immune-mediated conditions, displaying dysregulated contact between gut-associated immune system and commensal enteric flora.

Our research is focused on how probiotic bacteria affect the disrupted relationship between immune system and enteric flora during IBD. It is also well known fact that monoamine neurotransmitters play a role not only in nervous system but also in intestinal inflammation. They are secreted to the gut during IBD in high levels. There is insufficient evidence about the importance of these compounds for the reaction with components of the immune system.

We isolate murine immune cells, which are enclosed to gut environment, and follow their behavior in IBD conditions – cytokines (TNF-α, IL-6, IL-1β, IL-13, IL-17, IL-18, IL-8, IL-33, TL1A and LIGHT) and other regulators with particular accent on anti-inflammatory effect of probiotics. Application of ImmunoTools IT-Box-Cy55M recombinant cytokines is suitable right for this stimulation and would be very helpful for our kind of research.

ImmunoTools IT-Box-Cy55M for Adéla Dusilová

includes 55 recombinant mouse cytokines

rm EGF, rm Eotaxin / CCL11, rm FGF-a / FGF-1, rm FGF-b / FGF-2, rm FGF-8, rm Flt3L / CD135, rm G-CSF, rm GM-CSF, rm GRO-a / CXCL1, rm GRO-b / CXCL2, rm IFNgamma, rm IL-1alpha, rm IL-1beta, rm IL-2, rmIL-3, rm IL-4, rm IL-5, rm IL-6, rm IL-7, rm IL-9, rm IL-10, rm IL-11, rm IL-13, rm IL-15, rm IL-16, rm IL-17A, rm IL-17C, rm IL-17F, rm IL-19, rm IL-20, rm IL-21, rm IL-22, rm IL-25 / IL-17E, rm IL-27, rm IL-31, rm IL-33, rm IP-10 / CXCL10, rm LIF, rm MCP1 / CCL2, rm M-CSF, rm MIP-1α/ CCL3, rm MIP-1β / CCL4, rm MIP3α / CCL20, rm MIP3β / CCL19, rm NGF-beta, rm PDGF-AA, rm PDGF-BB, rm RANTES / CCL5, rm sCD40L / CD154, rm SCF, rm SDF-1α / CXCL12a, rm SDF-1β / CXCL12b, rm TNFα, rm TPO, rm VEGF DETAILS