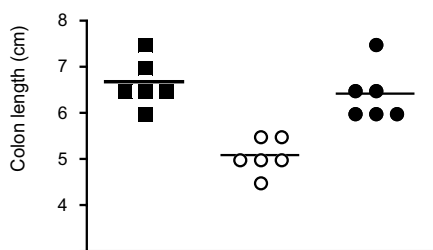
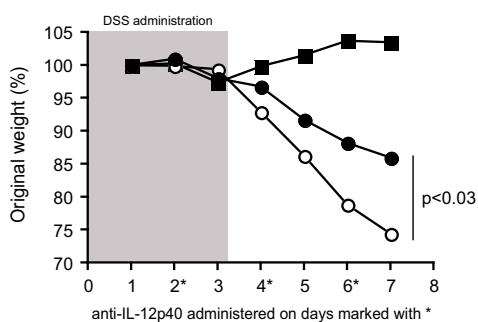


DSS-induced colitis

Inflammatory bowel disease (IBD) is a heterogeneous disorder afflicting approximately 0.1% of Western populations. In the majority of IBD patients immune pathogenesis is associated with increased production of pro-inflammatory cytokines including IL-1, IL-6, IL-8, IL-12, and IL-23. Genetic defects associated with IBD typically affect genes responsible for the regulation of innate immune defense against intestinal bacteria (e.g. NOD2 and ATG16L1), modulation of the adaptive immune response (e.g. IL-23 receptor, IL-10) or epithelial cell integrity and repair (e.g. PTPRS).

In this model administration of DSS in the drinking water results in weight loss, shortening of the colon, epithelial damage and mucosal inflammation in a T cell-independent manner. This model allows an analysis of the impact of any given drug on the promotion of epithelial cell repair and prevention/attenuation of pro-inflammatory cytokine production by innate immune cells. DSS-induced inflammation has previously been shown to be associated with increased production of metalloproteases (MMP), IL-6, IL-18, IFN γ , CCL2 and CCL4; and is attenuated in the absence of MMP9, IL-18, IFN γ , or IL-6. The intestinal inflammation in this model occurs independently of TNF α , which a widely used therapeutic, Infliximab, targets. Thus any drug that shows efficacy in this model may be particularly useful for treatment of patients refractive to Infliximab treatment.



■ No treatment
○ DSS
● DSS + anti-IL-12p40

Experimental readouts:

- Weight loss
- Histological analysis
- Disease pathology scoring
- Quantitative PCR analysis of tissue cytokines and chemokines

Duration:

7-20 days dependent upon experimental readouts

Service Package I is available alone, or in combination with Service Packages II and III

Service Package I

- Administration of test compounds
- Induction of colitis model
- Measurement of weight loss and colon length

Service Package II

- Histological analysis

Service Package III

- Quantitative PCR analysis of tissue cytokines and chemokines

Our scientific project managers can provide expert advice and guidance for all of your efficacy studies.

Please contact us for customized Service Packages
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