**Acute DSS-induced colitis:**

The disease index:

3 measures: -weight  
-bleeding  
-stool consistency

1. Weigh mice daily, and calculate the weight variation by dividing current day (Day X) by the first day, then multiplying by 100: ((Day X)/(Day 1))×100. Normally mice will gain weight or remain at the same weight for several days. However, once they begin losing weight, they can lose it very quickly (losing 10%-30% of their initial body weight in about four days). Thus, it is essential to closely monitor this parameter.

2. Evaluate feces daily for consistency and bleeding. Use these parameters, and the weight variation, to calculate a disease activity index (DAI) score for each mouse daily. The calculation is as follows:

Weight Variation: 0 - None, 1 - 1%-5%, 2 - 5%-10%, 3 - 10%-20%, 4 - >20%

Stool Consistency: 0 - Normal, 2 - Loose, 4 – Diarrhea

Fecal Bleeding: Fecal Bleeding: 0 - None, 2 - Hemoccult Positive, 4 - Gross rectal bleeding

For the evaluation of bleeding in the feces, hemoccult strips can be used to indicate the presence of blood that is not visible. Briefly, apply a small smear of feces to the strip, then close cover flap. Wait 3-5 minutes, then apply two drops of reagent to the back of the strip. Any trace of blue indicates the presence of occult blood. Results should be read within 60 seconds. (Specifics may depend on brand used – these instructions come from Hemeoccult SENSA strips (Beckman Coulter Inc., Brea, CA, USA)).

NOTE: Heme levels in feces can also be quantified. See separate protocol: Heme Quantification in Feces.