

## Tight junction protein expression-inducing probiotics alleviate TNBS-induced cognitive impairment with colitis in mice

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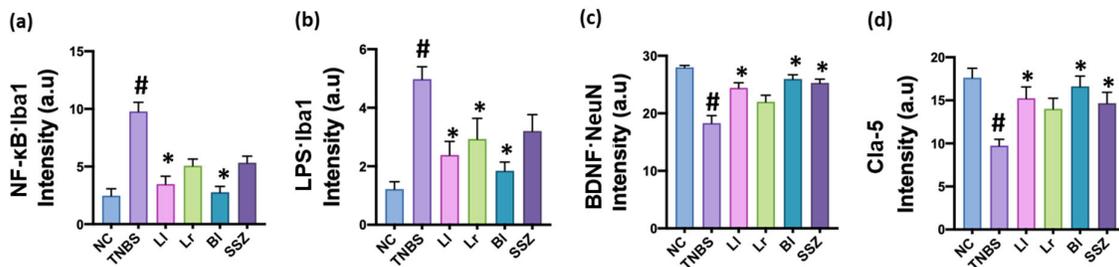


Figure S1. Effects of NK209 (LI), NK210 (Lr), and NK219 (BI) on NF-κB<sup>+</sup>Iba1<sup>+</sup> (a), BDNF<sup>+</sup>NeuN<sup>+</sup> (b), LPS<sup>+</sup>Iba1<sup>+</sup> (c), claudin (Cla)-5<sup>+</sup> cell populations in the hippocampus of mice with TNBS-impaired cognitive function. The entire intensities of the single plane images were quantified by ImageJ software ([github.com/imagej/imagej1](https://github.com/imagej/imagej1)). Data indicate mean ± SD ( $n = 8$ ). # $p < 0.05$  vs. NC. \* $p < 0.05$  vs. TNBS.

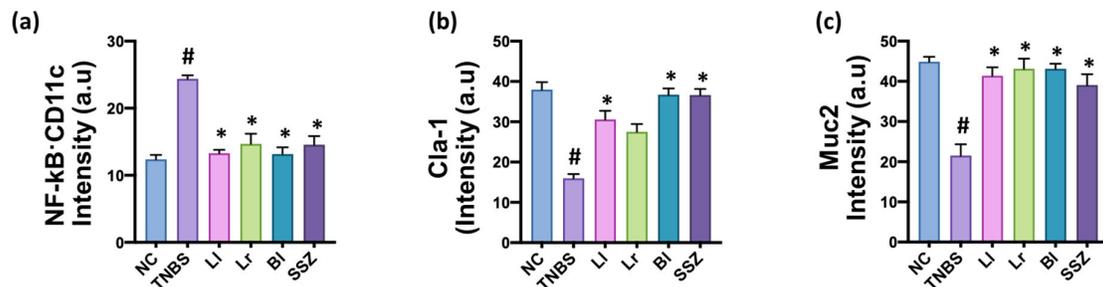


Figure S2 Effects of NK209 (LI), NK210 (Lr), and NK219 (BI) on NF-κB<sup>+</sup>CD11c<sup>+</sup> (a), claudin (Cla)-1<sup>+</sup> (b), and mucin (Muc)2<sup>+</sup> (c) cell populations in the colon of mice with TNBS-induced colitis. The entire intensities of the single plane images were quantified by ImageJ software ([github.com/imagej/imagej1](https://github.com/imagej/imagej1)). Data indicate mean ± SD ( $n = 8$ ). # $p < 0.05$  vs. NC. \* $p < 0.05$  vs. TNBS.

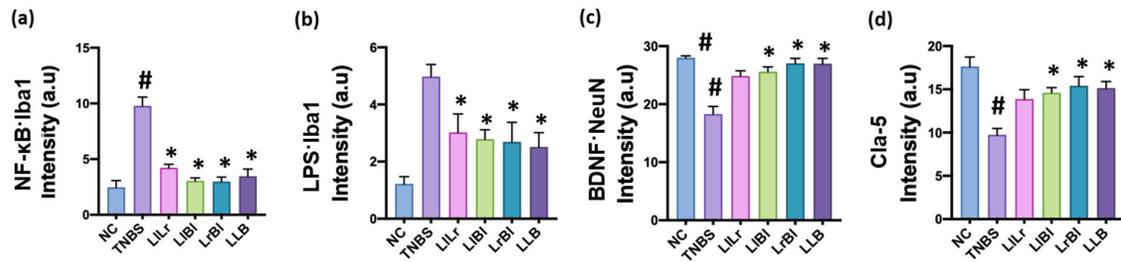


Figure S3. The combined effects of NK209 (LI), NK210 (Lr), and NK219 (Bl) on NF-κB<sup>+</sup>Iba1<sup>+</sup> (a), BDNF<sup>+</sup>NeuN<sup>+</sup> (b), LPS<sup>+</sup>Iba1<sup>+</sup> (c), claudin (Cla)-5<sup>+</sup> cell populations in the hippocampus of mice with TNBS-impaired cognitive function. The entire intensities of the single plane images were quantified by ImageJ software ([github.com/imagej/imagej1](https://github.com/imagej/imagej1)). Data indicate mean ± SD ( $n = 8$ ). # $p < 0.05$  vs. NC. \* $p < 0.05$  vs. TNBS.

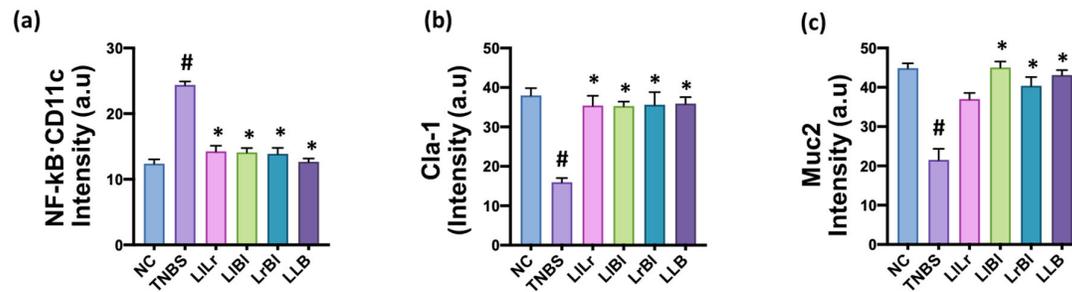


Figure S4. Figure 6. The combined effects of NK209 (LI), NK210 (Lr), and NK219 (Bl) on NF-κB<sup>+</sup>CD 11c<sup>+</sup> (a), claudin (Cla)-1<sup>+</sup> (b), and mucin (Muc)2<sup>+</sup> (c) cell populations in the colon of mice with TNBS-induced colitis. The entire intensities of the single plane images were quantified by ImageJ software ([github.com/imagej/imagej1](https://github.com/imagej/imagej1)). Data indicate mean ± SD ( $n = 8$ ). # $p < 0.05$  vs. NC. \* $p < 0.05$  vs. TNBS.