Natural kefir grains have a unique microbiota. The structure contains lactic acid bacteria (LAB), acetic acid bacteria and yeast in specific ratios in a polysaccharide matrix. Authentic kefir is produced by a traditional method using kefir grains cultured in milk. In contrast, starter cultures are used instead of kefir grains in the industry. The commercial kefir starter cultures used are limited and often very different from the kefir grain microbiota. The resultant commercial “kefir” is just a fermented drink containing some probiotic microorganisms and does not possess the same microbial population or chemical and physical characteristics of authentic kefir. The aim of this project was to determine and compare the effects on the mouse immune system of kefir produced using natural kefir grain versus commercial kefir produced by starter culture.