

Evaluation of the cytoprotective effects of bovine lactoferrin against intestinal toxins using cellular model systems

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Abstract

Lactoferrin is an iron-binding glycoprotein that exhibits a range of health benefits including immune regulation and disease prevention derived from its structural properties. The present study employed immune cell models and a colon epithelial cell model to investigate the protective effects of bovine lactoferrin (BLf) on both immune cells and colon epithelium cells. BLf caused significant reduction of faecal genotoxin-induced DNA damage in HT29 cells, and down-regulation of lipopolysaccharide (LPS)-induced macrophage cell stress and endotoxic response, in an infection status.