

# efferat<sup>TM</sup> Human Lactoferrin

Suggested Claims Substantiation | May 2025

**Hormone Support: Suggested Claims Substantiation** • Lactoferrin levels fluctuate with response to hormonal levels during the menstrual cycle

- (1). • Lactoferrin helps to protect against infections, which is helpful during menstruation
- (2). • Lactoferrin's anti-inflammatory properties may lessen discomfort associated with menstruation
- (4). • Helaina's preliminary efficacy results demonstrate the anti-inflammatory function of efferat<sup>TM</sup> Human Lactoferrin.

*For Kroma's context: to study the efferat<sup>TM</sup> Human Lactoferrin impact on inflammation, peripheral blood mononuclear cells (PBMC) were stimulated to secrete high levels of pro-inflammatory cytokines. In PBMC from four human donors tested, the inflammatory response was reduced by 70% on average in cells treated with efferat<sup>TM</sup> Human Lactoferrin, compared to 24% reduction on average by cells treated with bovine lactoferrin. Helaina is conducting additional studies to further explore these findings. (See Appendix 1 for additional detail.)*

**Metabolism: Suggested Claims Substantiation** • Lactoferrin aids in proper iron balance to support energy levels and reduces the risk of iron

deficiency anemia (5). Lactoferrin delivers superior iron absorption to fuel energy and red blood cell health (6).

**Cognition: Suggested Claims Substantiation** • Lactoferrin may improve memory and learning ability, based on study conducted on animals (7).

**Stress: Suggested Claims Substantiation** • Lactoferrin nutritionally supports the body's first line of defense against microbial stressors (8). •

Lactoferrin has been clinically shown to reduce the prevalence of digestive discomfort during times of immune stress (9).

## References

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## Appendix 1

### Helaina's preliminary efficacy results: the anti-inflammatory function of effera™ Human Lactoferrin

- Helaina used peripheral blood mononuclear cell (PBMC) assays to test the functionality of effera™ Human Lactoferrin related to inflammation.
- PBMC samples are a useful read-out model for functionality as they contain a diversity of immune cells including lymphocytes and monocytes (precursors to antigen presenting cells, such as macrophages and dendritic cells). The cytokine analyzed was TNF $\alpha$ .
- **In PBMC from four human donors tested, effera™ Human Lactoferrin significantly reduced the LPS-induced inflammatory response in all donors tested (n=4).** The inflammatory response was reduced by 70% on average in cells treated with effera™ Human Lactoferrin, compared to 24% reduction on average by cells treated with bovine lactoferrin. In three of the four donors tested, effera™ Human Lactoferrin reduced inflammation more significantly than bovine LF.
- Helaina is conducting additional studies to explore these findings.

