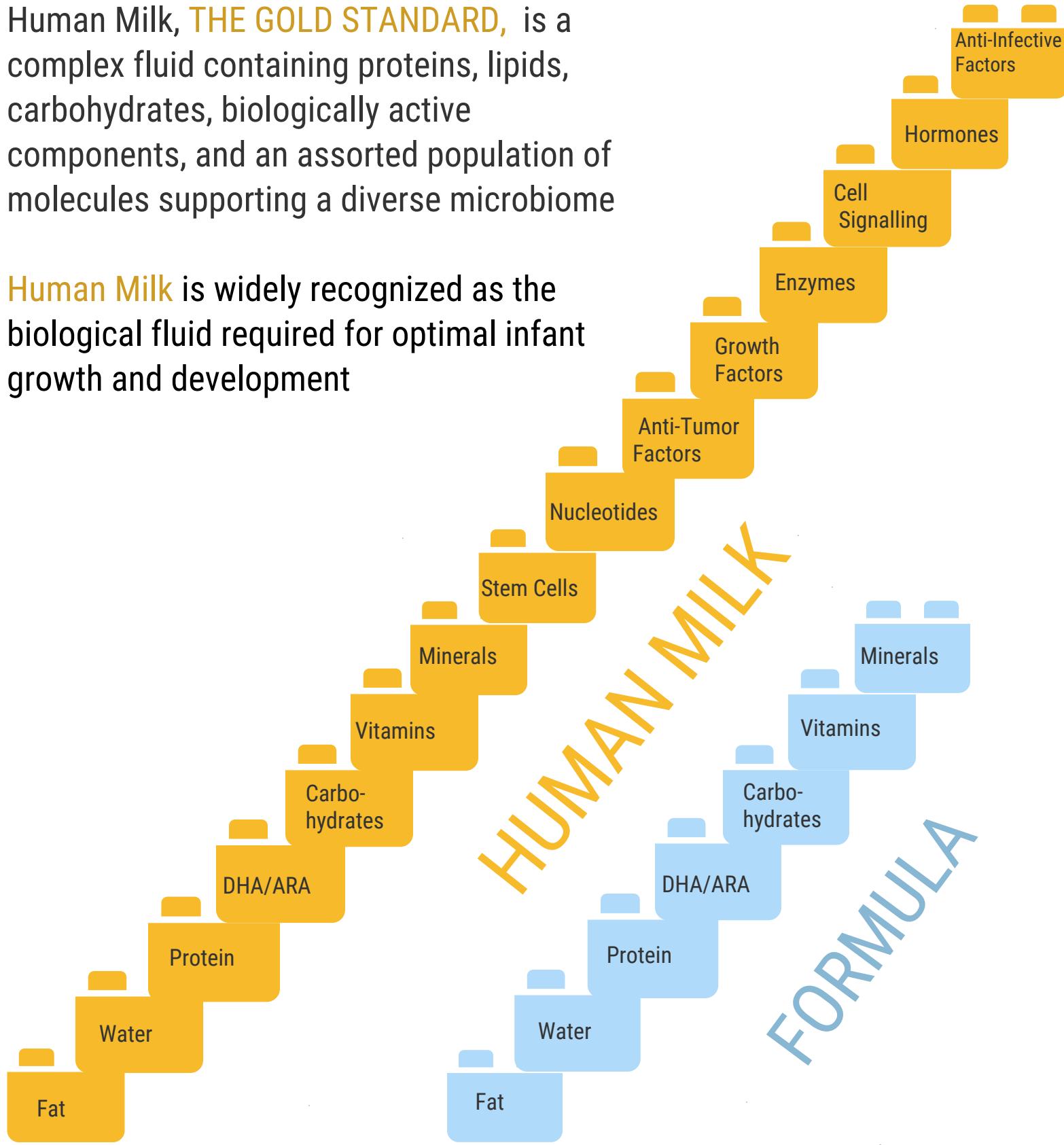


Human Milk Ingredients

Human Milk, **THE GOLD STANDARD**, is a complex fluid containing proteins, lipids, carbohydrates, biologically active components, and an assorted population of molecules supporting a diverse microbiome

Human Milk is widely recognized as the biological fluid required for optimal infant growth and development



Human Milk Ingredients References

1. Ballard, O., & Morrow, A. (2013). Human Milk Composition Nutrients and Bioactive Factors. *Pediatr Clin N Am* 60, 49–74.
2. Davanzo, R., Zauli, G., Monasta, L., Vecchi Brumatti, L., Abate, M., Ventura, G., Demarini, S. (2013). Human colostrum and breast milk contain high levels of TNF-related apoptosis-inducing ligand (TRAIL). *J Hum Lact*, 29(1), 23-25.
3. Gephart, S., & Weller, M. (2014). Colostrum as oral immune therapy to promote neonatal health. *Adv Neonatal Care* 14(1), 44–51.
4. Hassiotou, F., & Hartmann, P. (2014). At the dawn of a new discovery: the potential of breast milk stem cells. *Advances in Nutrition*, 5(6), 770-778.
5. Hassiotou, F., Beltran, A., Chetwynd, E., Stuebe, A.M., Twigger, A.J, Metzger, P., Trengove, N., Lai, C.T., Filgueira, L., Blancafort, P., & Hartmann PE. (2012). Breastmilk is a novel source of stem cells with multi-lineage differentiation potential. *Stem Cells* 30, 2164-2174.
6. Hassiotou, F., Hepworth, A., Metzger, P., Tat Lai, C., Trengove, N., Hartmann, P., & Filguiera, P. (2013). Maternal and infant infections stimulate a rapid leukocyte response in breastmilk. *Clinical & Translational Immunology* 2, e3; doi: 10.1038/cti.2013.1
7. Hassiotou, F., Geddes, D., Hartmann, P. (2013) Cells in human milk: State of the Science. *Journal of Human Lactation*, 29(2), 171-82.
8. Lee, J., Kim, H., Jung, Y., Choi, K., Shin, S., Kim, E. et al. (2015). Oropharyngeal colostrum administration in extremely premature infants: an RCT. *Pediatrics*, 135(2), 35, e357–366. DOI: 10.1542/peds.2014-2004
9. Min, Y. & Rhee, P. (2015). The role of microbiota on the gut immunology. *Clin Ther*, 37(5): 968–975.
10. Mossberg, A., Hun Mok, K., Morozova-Roche, L., & Svanborg, C. (2010). Structure and function of human alpha-lactalbumin made lethal to tumor cells (HAMLET)-type complexes. *The FEBS Journal*, 277(22), 4614-4625.
11. Rodriguez et al. (2015). Oropharyngeal administration of mother's colostrum, health outcomes of premature infants: study protocol for a randomized controlled trial. *Trials*, 453. DOI 10.1186/s13063-015-0969-6
12. Rodriguez, N., Meier, P., Groer, M., Zeller, J., Engstrom, J., Fogg, L., Du, H., & Caplan, M. (2011). Randomized clinical trial of the oropharyngeal administration of mother's colostrum to extremely low birth weight infants in the first days of life. *Neonatal Intensive Care* 24(4), 31-35.
13. Seigel, J., Smith, B., Ashley, P., Cotton, M., Herbert, C., King, B. et al. (2013). Early administration of oropharyngeal colostrum to extremely low birthweight infants. *Breastfeeding Medicine*, 8, (6), 491-5.
14. Thibeau, S., & Boudreaux, C. (2013). Exploring the use of mothers' own milk as oral care for mechanically ventilated very low-birth-weight preterm infants. *Adv Neonatal Care* 13(3): 190–197.
15. Twigger A., Hepworth A., Tat Lai, C., Chetwynd, E., Stuebe, A., Blancafort, P., Hartmann, P., Geddes, D. & Kakulas, F. (2015). Gene expression in breastmilk cells is associated with maternal and infant characteristics. *Scientific Reports*, 5, Article number: 12933. Doi: 10.1038/srep12933
16. Verduci, E., Banderali, G., Barberi, S., Radaelli, G., Lops, A., Betti, F., Riva, E., & Giovannini, M. (2014). Epigenetic Effects of Human Breast Milk. *Nutrients*, 6, 1711-1724. Doi: 10.3390/nu6041711
17. Witkowska-Zimny, M. & Kaminska-El-Hassan, E. (2017). Cells of human breast milk. *Cellular & Molecular Biology Letters* 22, 1-11. DOI 10.1186/s11658-017-0042-4