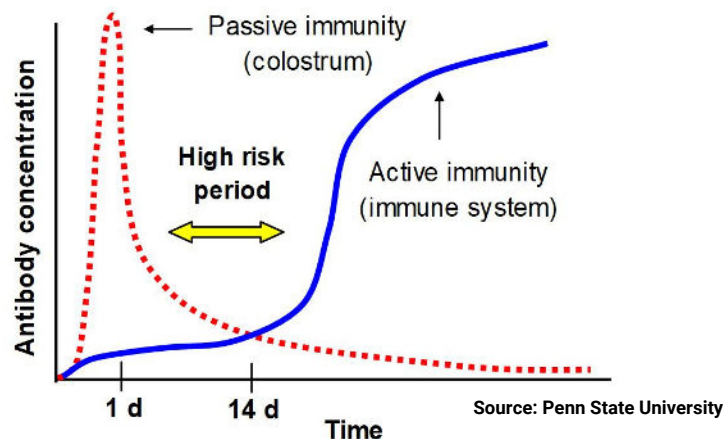


Is your calf milk replacer doing its job?

The Immunity Gap

Are you aware of the immunity gap? The immunity gap in dairy calves refers to the vulnerable period during early life when a calf's immune system is not fully developed, leaving them susceptible to various infections and diseases. This critical phase occurs shortly after birth and persists until the calf's immune system matures, usually around two to three months of age. During this time, the calf relies heavily on passive immunity obtained from colostrum, the first milk produced by the mother. Colostrum contains essential antibodies and nutrients that help protect the calf against pathogens. Failure to receive an adequate amount of high-quality colostrum within the first few hours of life can lead to an immunity gap, leaving the calf at risk of infections and compromising its overall health. Proper management practices, including ensuring timely colostrum intake and implementing vaccination programs, are crucial in bridging this immunity gap and promoting the well-being of dairy calves.



The “IgG is Enough” Myth

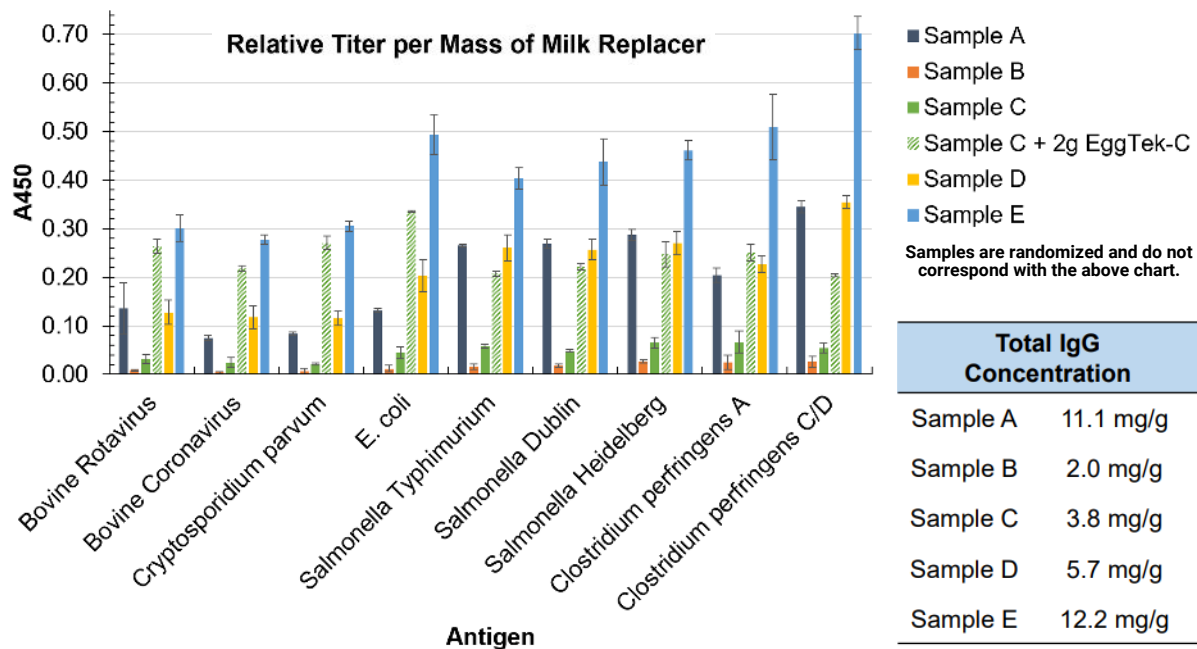
Milk replacers are formulated for optimal nutrition and fed to calves following colostrum. It is generally assumed that the IgG found in milk replacers offers adequate support to the immune system through this immunity gap. IgG, or Immunoglobulin G, is a class of antibodies found in the blood and extracellular fluid. It plays a crucial role in the immune system, contributing to long-term immunity by recognizing and neutralizing pathogens such as bacteria and viruses. IgG is the most abundant antibody in the human body (and the most abundant antibody in cattle and other ruminants, too) and provides protection against a wide range of infections. But... is it enough?

Comparison of Milk Replacer Antibody Specificity

Arkion Life Sciences tested five comparable milk component-only milk replacers to determine both the total amount of IgG each contained, as well as how much each of the IgG antibodies bound to common pathogens that often cause scours in young calves.

Milk Replacers Evaluated

COMPANY	BRAND	PROTEIN/FAT
Milk Specialties Global (MSG)	Excelerate® w/Bio-Mos®	28/15
Dairy Farmers of America	DFA Nutrition 24/20 Bova/Clarify/Baciflex	24/20
Denkavit	Denkamilk Perfect 24/20	24/20
Land O Lakes®	Cow's Match® ColdFront®	26/20
Provimi® North America, Inc.	Nuture® Professional 24-17 BOV CFL	24/17



CONCLUSIONS

- Levels of IgG and antigen titers varied widely among brands.
- Both IgG and IgG specificity should be tested as they do not always correlate.
- The addition of 2g of EggTek-C to Sample C increased antibody titers significantly, making it more comparable to the other brands.

These statements have not been evaluated by the Food & Drug Administration. This product is not intended to diagnose, treat or prevent any disease.