Norovirus Antibodies for Prophylaxis and Therapy

Brief Description of Technology
Method to produce IgY that can be directed against Norovirus (NoV) for use in the passive treatment or therapy of gastrointestinal infections.

Technology ID
2012-0408

Technology Overview
Noroviruses are a leading cause of epidemic acute gastroenteritis affecting millions of people worldwide. This technology offers an approach for large-scale production of NoV antibodies. Chickens are immunized with NoV P particles, causing the birds to continuously produce high titers of antibodies for at least 3 months. The antibodies produced are stable at wide temperature and pH ranges, and strongly react with NoV P particles, blocking the P particles from binding to the histo-blood group antigen receptors. This production approach yields high titers of NoV antibodies that can be used to effectively immunize against NoV infection at scale.

Applications
• Antibody therapy for prevention or treatment of infection

Advantages
• Produces antibodies at high yield
• Products are stable across wide temperature and pH range
• Offers passive immunization or therapy

Market Overview
• The Centers for Disease Control and Prevention (CDC) estimates that noroviruses cause nearly 21 million cases of acute gastroenteritis each year.
• It is estimated to cost the US $2 billion per year in health care costs and lost productivity

Investigator Overview
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