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12-8551: Anti-E. coli K99 pili (Clone K9912-418.2)

Clonality :	Monoclonal
Clone Name :	K9912-418.2
Application :	ELISA
Alternative Name :	F5 fimbriae, F5 pilus, K99 fimbriae, K99 antigen
Isotype :	Mouse IgG1
Immunogen Information :	Purified E. coli K99 (B44) pili

Description

Specificity
Highly selective for K99+ E. coli strains. This monoclonal antibody demonstrates zero cross-reactivity with K99-negative E. coli (B41), related fimbrial antigens (E. coli K88ac, 987P), or common bacterial pathogens including Proteus mirabilis, Proteus vulgaris, Pseudomonas aeruginosa, Enterobacter aerogenes, Citrobacter freundii, Klebsiella pneumoniae, and Streptococcus agalactiae.

Background
Bovine enteric colibacillosis is an economically important disease in neonatal calves caused by enterotoxigenic E. coli (ETEC) which adhere to intestinal cells using pili. Most ETEC isolated from cattle use K99 pili to bind to enterocytes of the small intestine. K99 pili are primarily composed of a repeating 18.2kDa major subunit which is responsible for binding to host glycoprotein receptor, N-glycolylneuraminic acid-GM3. A 7.1kb operon of eight genes on a plasmid encode the pili and other associated proteins responsible for regulation, transport, and assembly of K99 pili.

Product Info

Amount :	500 µg / 100 µg
Purification :	Preparation: Manufactured in a state-of-the-art facility located in St. Louis, Missouri USA operating under strict ISO 9001 and ISO 13485 certified quality management systems, this antibody undergoes a rigorous, multi-step purification process. Utilizing advanced Protein A or Protein G affinity chromatography, our meticulous preparation protocol ensures premium purity. This specialized processing guarantees exceptionally low levels of endotoxins, minimal leachable Protein A, and negligible aggregate formation for reliable experimental outcomes.
Content :	Concentration: Lot Specific Formulation: This monoclonal antibody is formulated in phosphate buffered saline (PBS) pH 7.2 - 7.4 with no carrier protein or preservatives added.
Storage condition :	This antibody is stable for at least one (1) year at -20°C to -70°C. Store product in appropriate aliquots to avoid multiple freeze-thaw cycles.

Application Note

These antibodies have been qualified for use in ELISA to detect K99+ E. coli.

For Research Use Only. Not for use in diagnostic/therapeutics procedures.