Portfolio de Inovação

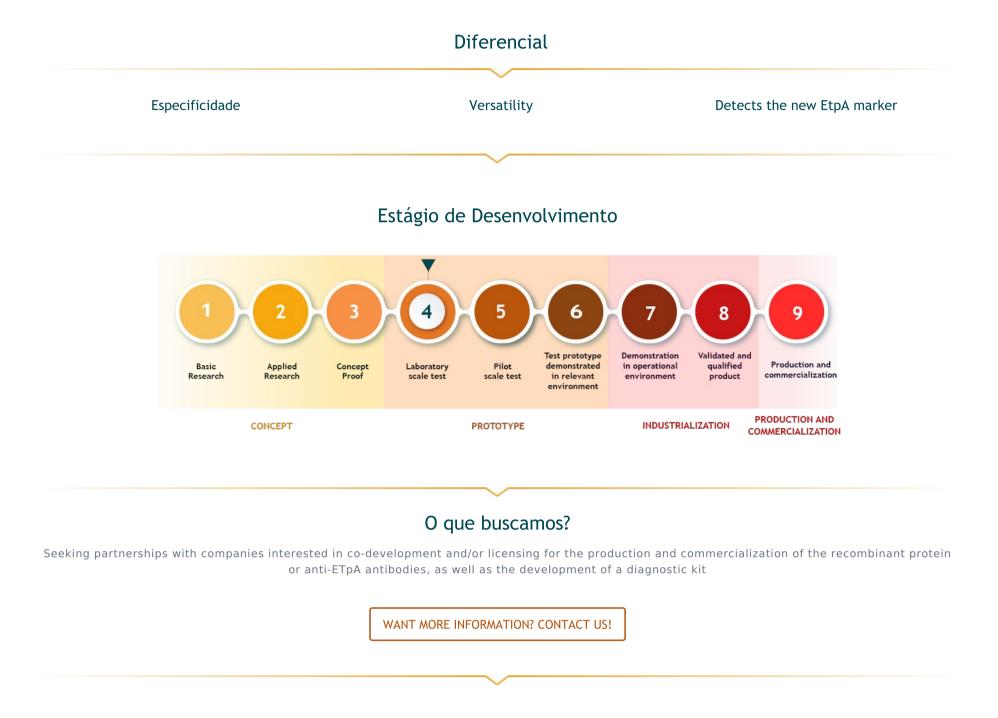
Diagnosis of Enterotoxigenic Escherichia coli (ETEC)

Problema

Traveler's diarrhea is a specific subtype of acute diarrhea, typically caused by a bacterial infection. It affects up to 40% of travelers visiting underdeveloped regions worldwide and accounts for 33.5% of medical visits upon their return. Accurate diagnosis of these infections is crucial for precise patient treatment, as there is a possibility of adverse reactions caused by medication in specific cases. Currently, there is no test available in the market that can differentiate diarrheagenic infections caused by all subtypes of E. coli, including Enterotoxigenic Escherichia coli (ETEC).

Solução

This solution involves the development of a recombinant protein, antibodies, and an immunoassay capable of identifying E. coli, specifically subtype ETEC, by detecting the ETpA protein. The antibodies have been validated using flow cytometry combined with magnetic microspheres and have the potential for use in other immunoassays. This technology is versatile and can be applied to any immunological detection method.



Propriedade Intelectual

