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32-13617: Norovirus Group-1 P-Domain

Alternative Name :

Human norovirus is classified into two groups, group 1& group 2. Norwalk virus is the species which belongs to group 1 and was discovered in 1968 at Ohio. Norovirus is a familiar virus which causes human gastroenteritis with the following symptoms vomiting,Â diarrhea and sickness. CDC report revealed that there are 19-21 million Americans infected by Nororvirus annually with 800 deaths, 1 in 15 people with infection. Around the world, this virus affects about 267 million people and causes over 200,000 deaths each year; these losses are mostly in less developed countries and in the very young, elderly and immuno-suppressed population, though, most cases are self-limited with a full recovery within just a few days. Norovirus is extremely contagious and can spread from human to human through infected food, water or contaminated surfaces. The outbreaks usually occur from November-April, while the peak is in January. Norovirus is a positive sense RNA virus with 7.5 kb nucleotides, encoding a major structural protein VP1 with 50-55kDa. The full length ofÂ VP1 capsid comprises the internal N-terminal, Hinge, shell (S) and protruding (P) domains. P domain from 225 to 520 forms P1- P2-P1 structure. Moreover, P domain has a receptor binding region which recognizes human histo-blood group antigens (HBGAs). P domain expressed in bacteria can spontaneously form a P dime as well as a P particle aggregated by 12 P dimmers. P particle displays an increased binding activity to HBGAs higher than virus-like particle (VLP) formed by the full-length capsid. For norovirus vaccine development, we consider P domain as a good candidate.

Description

Source: Escherichia Coli.
Sterile Filtered clear solution.
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The Recombinant Norovirus Group-1 Capsid P-Domain, E.Coli derived, Norwalk strain contains a.a. from 225-520 having a Mw of 30kDa. The protein is fused to a 6xHis tag at N-terminal and purified by chromatography techniques. P-domain (225-520 a.a.) forms P1- P2-P1 structure. P-domain has a receptor binding region to recognize human histo-blood group antigens (HBGAs). P-domain expressed in bacteria can spontaneously form a P dime and a P particle aggregated by 12 P dimmers. P-particle displays an enhanced binding activity to HBGAs higher than virus-like particle (VLP) formed by the full length capsid.

Product Info

Amount :	100 µg / 0.5 mg
Purification :	Protein is >95% pure as determined by 12% PAGE (coomassie staining).
Content :	Phosphate buffer and 10 mM K2CO3.
Storage condition :	The Recombinant Norovirus Group-1 P-Domain although stable at 4°C for 1 week, should be stored below -18°C. Please prevent freeze thaw cycles.