

# Recombinant Human parvovirus B19 (isolate AU) (HPV B19) Capsid protein VP1

Catalog No: #AP71164

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Package Size: #AP71164-1 20ug #AP71164-2 100ug #AP71164-3 1mg

## Description

Product Name	Recombinant Human parvovirus B19 (isolate AU) (HPV B19) Capsid protein VP1
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:228-781aaSequence Info:Partial
Accession No.	P07299
Uniprot	P07299
Calculated MW	64.8 kDa
Tag Info	N-terminal 6xHis-tagged
Target Sequence	MTSVNSAEASTGAGGGGSNSVKSMSWSEGATFSANSVTCTFSRQFLIPYDPEHHYKVFSPAASSCHNASGKE AKVCTISPIMGYSTPWRYLDFNALNLFFSPLEFQHLENIYGSIAPDALVTITISEIAVKDVTDKTGGGVQVTDSTT GRLCMLVDHEYKYPYVLGGQDQLAPELPIWVYFPPQYAYLTVGDVNTQGISGDSKKLASEESAFYVLEHSSF QLLGTGGTASMSYKFPVPPELEGCSQHFYEMYNPLYGSRLGVPDTLGGDPKFRSLTHEDHAIQPQNFMP GPLVNSVSTKEGDSSNTGAGKALTGLSTGTSQNTRISLRPGPVSQPYHHWDTKYVTGINAISHGQTTYGNA EDKEYQQGVGRFPNEKEQLKQLQGLNMHTYFPNKGTTQYTDQIERPLMVGSVWNRALHYESQLWSKIPNL DDSFKTQFAALGGWGLHQPPPQIFLKILPQSGPIGGIKSMGITTQYAVGIMVTMTFKLGRKATGRWNPQ PGVYPPHAAGHLPYVLYDPTATDAKQHHRHGYEKPEELWTAKSRVHPL
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

## Background

Capsid protein self-assembles to form an icosahedral capsid with a T=1 symmetry, about 22 nm in diameter, and consisting of 60 copies of two size variants of the capsid proteins, VP1 and VP2, which differ by the presence of an N-terminal extension in the minor protein VP1. The capsid encapsulates the genomic ssDNA. Capsid proteins are responsible for the attachment to host cell receptors, such as the glycosphingolipid globoside or the integrin heterodimer ITGAV,ITGB1. This attachment induces virion internalization predominantly through clathrin-dependent endocytosis. Binding to the host receptors also induces capsid rearrangements leading to surface exposure of VP1 N-terminus, specifically its phospholipase A2-like region and nuclear localization signal(s). VP1 N-terminus might serve as a lipolytic enzyme to breach the endosomal membrane during entry into host cell. IntraCytoplasmic domain transport involves microtubules and interaction between capsid proteins and host dynein. Exposure of nuclear localization signal probably allows nuclear import of capsids .

## References

Nucleotide sequence and genome organization of human parvovirus B19 isolated from the serum of a child during aplastic crisis.Shade R.O., Blundell M.C., Cotmore S.F., Tattersall P., Astell C.R.J. Virol. 58:921-936(1986)

Note: This product is for in vitro research use only