

## parvovirus B19 Capsid protein VP1 Recombinant Protein | VP2 recombinant protein

Recombinant Human parvovirus B19 Capsid protein VP1, partial

|                              |                                                                 |
|------------------------------|-----------------------------------------------------------------|
| CATALOG #<br><b>AAA18557</b> | HOST<br><b>E Coli or Yeast or Baculovirus or Mammalian Cell</b> |
|------------------------------|-----------------------------------------------------------------|

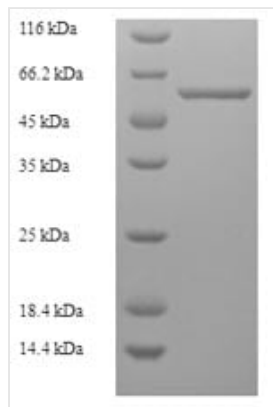
### PRODUCT SYNONYMS

parvovirus B19 Capsid protein VP1; Recombinant Human parvovirus B19 Capsid protein VP1; partial; VP2 recombinant protein

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | E Coli or Yeast or Baculovirus or Mammalian Cell                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Purity/Purification     | Greater or equal to 85% purity as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Form/Format             | Lyophilized or liquid (Format to be determined during the manufacturing process)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Sequence Positions      | 228-781aa; partial                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Sequence                | MTSVNSAEAS TGAGGGGSNS VKSMWSEGAT FSANSVTCTF SRQFLIPYDP EHHYKVFSPA ASSCHNASGK<br>EAKVCTISPI MGYSTPWRYL DFNALNLFFS PLEFQH LIEN YGSIAPDALT VTISEIAVKD VTDKTGGGVQ<br>VTDSTTGRLC MLVDHEYKYP YVLGQGQDTL APELPIWVYF PPQYAYLTVG DVNTQGISGD SKKLASEESA<br>FYVLEHSSFQ LLGTGGTASM SYKFPPVPPE NLEGCSQHFY EMYNPLYGSR LGVPDTLGGD PKFRSLTHED<br>HAIQPQNFMF GPLVNSVSTK EGDSSNTGAG KALTGLSTGT SQNTRISLRP GPVSQPYHHW DTDKYVTGIN<br>AISHGQTTYG NAEDKEYQQG VGRFPNEKEQ LKQLQGLNMH TYFPNKGTTQ YTDQIERPLM VGSVWNRRAL<br>HYESQLWSKI PNLDDSFKTQ FAALGGWGLH QPPPQIFLKI LPQSGPIGGI KSMGITTIVQ YAVGIMVTM<br>TFKLGPRKAT GRWNPQPGVY PPHAAGHLPY VLYDPTATDA KQHHRHGYEK PEELWTAKSR VHPL |
| Preparation and Storage | Store at -20 degree C, for extended storage, conserve at -20 degree C or -80 degree C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

### IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

|                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for VP2 recombinant protein | Capsid protein self-assbles 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 rearrangents 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 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)<br>Alpha5beta1 integrin as a cellular coreceptor for human parvovirus B19 requirement of functional activation of beta1 integrin for viral entry.Weigel-Kelley K.A., Yoder M.C., Srivastava A.Blood 102:3927-3933(2003)<br>The globoside receptor triggers structural changes in the B19 virus capsid that facilitate virus internalization.Boensch C., Zuercher C., Lieby P., Kempf C., Ros C.J. Virol. 84:11737-11746(2010)<br>Advances in human B19 erythrovirus biology.Servant-Delmas A., Lefrere J.J., Morinet F., Pillet S.J. Virol. 84:9658-9665(2010)                                                                                                                                                                                                                                                                                                              |

NCBI AND UNIPROT INFORMATION

|                      |                    |
|----------------------|--------------------|
| UniProt Accession #  | P07299             |
| Molecular Weight     | 64.8 kDa           |
| UniProt Protein Name | Capsid protein VP1 |
| UniProt Entry Name   | CAPSD_PAVHU        |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | [contact@aaabiotech.com](mailto:contact@aaabiotech.com)  
Online datasheet: <https://www.aaabiotech.com/parvovirus-b19-capsid-protein-vp1-recombinant-protein-e-coli/18557>