Data Sheet (Cat.No.TMPH-01849)

TargetMol

Human parvovirus B19 (isolate AU) Non-capsid protein NS-1 (His & SUMO)

General Information

Synonyms:	Non-structural protein NS1;NS1;NCVP1;Non-structural protein 1;Initiator protein NS1;Non-capsid protein NS-1
Protein Construction:	1-255 aa
Species:	HPV B19
Expression Host:	E. coli
Accession:	P07298
Molecular Weight:	44.6 kDa (predicted)
AA Sequence:	MELFRGVLQVSSNVLDCANDNWWCSLLDLDTSDWEPLTHTNRLMAIYLSSVASKLDFTGGPLAGCLYFFQVE CNKFEEGYHIHVVTGGPGLNPRNLTVCVEGLFNNVLYHLVTENVKLKFLPGMTTKGKYFRDGEQFIENYLMKK IPLNVVWCVTNIDGYIDTCISATFRRGACHAKKPRITTAINDTSSDAGESSGTGAEVVPFNGKGTKASIKFQTMV NWLCENRVFTEDKWKLVDFNQYTLLSSSHSGSFQI

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Tris-based buffer, 50% glycerol

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Multifunctional protein essential for viral DNA replication, which cooperatively interacts with the viral DNA origin of replication and transactivates several promoters including the viral p6 promoter. Binds the origin of replication and performs an endonucleolytic nick within a conserved sequence in the viral genome, thereby initiating the

rolling circle replication (RCR). Participates in the transcriptional regulation the viral p6 promoter that regulates all viral transcripts and the cellular CDN1A or IL6 promoters. Transactivates several host promoters some of which induce the S cell cycle phase for the production of host replicative proteins. Upregulates the expression of host E2F4 and E2F5 and interacts with both these factors thereby inhibiting the host cell cycle G2/M transition. This arrest promotes apoptosis for viral release.

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