

Variola virus (isolate Human/India/Ind3/1967) Pro-VGF Protein (His & Myc)

General Information

Synonyms:	OPG019;Pro-variola growth factor;Pro-VGF
Protein Construction:	19-100 aa
Species:	VARV
Expression Host:	E. coli
Accession:	P0DOP9
Molecular Weight:	16.6 kDa (predicted)
AA Sequence:	ANSGNAIETTLSEITNTTTDIPAIRLCGPEGDRYCFHGICIHARDIDGMYCRCSHGYTGIRCQHVVLLVDYQRSEK PNTTTSY

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:	> 85% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

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

Variola growth factor stimulates cellular proliferation (hyperplasia) around infected cells. This effect is beneficial for virus replication in vivo, because poxviruses replicate possibly better in proliferating cells than in quiescent cells. Acts by binding host EGFR, inducing its dimerization, autophosphorylation and leading to activation of

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several cellular pathways regulating cell proliferation or cell survival. The activation by host EGFR of mitogen activated protein kinases (MAPK) and extracellular-signal regulated kinases (ERK) are essential for the positive effect of vaccinia growth factor on poxvirus virulence in vivo.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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