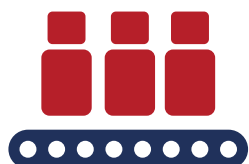


FACTSHEET



VACCINE PRODUCTION

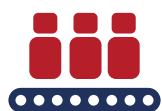


→ DIRECT LINK



BIOSOLUTIONS BY **PAN**TM / MEDIA / REAGENTS / BUFFER





VACCINE PRODUCTION



PAN-Biotech plays a critical role in vaccine production, offering specialized products and expertise that enhance vaccine development and manufacturing processes.

/ VIRAL CULTURE MEDIA:

Our high-quality media formulations support the propagation and stabilization of viral cultures, ensuring the production of safe and effective vaccines.

/ PROCESS OPTIMIZATION:

PAN-Biotech works closely with vaccine developers to optimize production processes, enhancing yield and consistency while reducing costs and time to market.

/ RAPID RESPONSE:

In response to emerging infectious diseases, we offer rapid development and scale-up of vaccine production solutions, enabling quick and effective responses to public health challenges.

PROVEN CELL CULTURE MEDIA:

- **VERO CELLS:** Panserin ProVero
- **MDCK CELLS:** Serum-free Medium for MDCK
- **BHK21 CELLS:** EMEM Fibroblast, Panserin 401
- **SF9 CELLS:** Spodopan, Schneider's Drosophila

UPSTREAM (USP)		
CELL LINE DEVELOPMENT AND MAINTENANCE	VIRUS INFECTION / TRANSFECTION	CELL EXPANSION
<ul style="list-style-type: none">■ Culture Media: e.g. DMEM/ F12, RPMI 1640■ Customized Media■ Growth Factors/Cytokines: bFGF, IL-2, IL-15, EGF■ Cell Dissociation Solutions: e.g. Accutase, Trypsin-EDTA■ Buffered Saline Solutions: e.g. DPBS■ WFI Quality Water/Nuclease-free Water■ Cryopreservation Media: e.g. Cryopan, Cryopan DMSO-free■ Antibiotics (e.g. Penicillin-Streptomycin)	<ul style="list-style-type: none">■ Transfection Reagents (e.g., Lipofectamine, FuGENE)■ Viral Vector Systems (e.g. Lentivirus, Adenovirus vectors)■ siRNA or shRNA (for gene silencing, if applicable)■ Polybrene (to enhance viral transduction efficiency)■ Customized Serum-Free Transfection Media■ Customized Buffer Solutions■ WFI quality water	Customized Cell Culture Media <ul style="list-style-type: none">■ Culture Media (e.g. DMEM/F-12, RPMI-1640)■ Cell Dissociation Buffers■ Cryopreservation Solutions (Cryopan)■ Balanced Salt Solutions (e.g. Hanks' or Earle's)■ Cell Culture Supplements (e.g. Insulin, Transferrin)■ WFI quality water

DOWNSTREAM (DSP)	
VIRAL HARVESTING AND PURIFICATION	VACCINE FORMULATION (EXCIPIENTS GRADE)
<ul style="list-style-type: none">■ Cell Lysis Reagents (Triton X-100, Sodium Dodecyl Sulfate (SDS), Nonidet P-40 (NP-40), RIPA Buffer, Lysozyme)■ Nuclease Solutions (Benzonase Nuclease)■ Proteinase Inhibitors (EDTA)■ Customized Concentration Buffers■ WFI quality water	<ul style="list-style-type: none">■ Adjuvants■ Stabilizers■ Preservatives■ Customized Buffer Solutions (e.g. Tris, Sodium Acetate)■ Customized Diluents (e.g. 0.9 % Sodium Chloride, Ringer's Solution, Balanced Salt Solution)■ WFI quality water/Nuclease-free water

Products highlighted in **"RED"** are currently available / customized production with short delivery time!

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