



## EXCIPIENTS FOR VACCINE FORMULATION

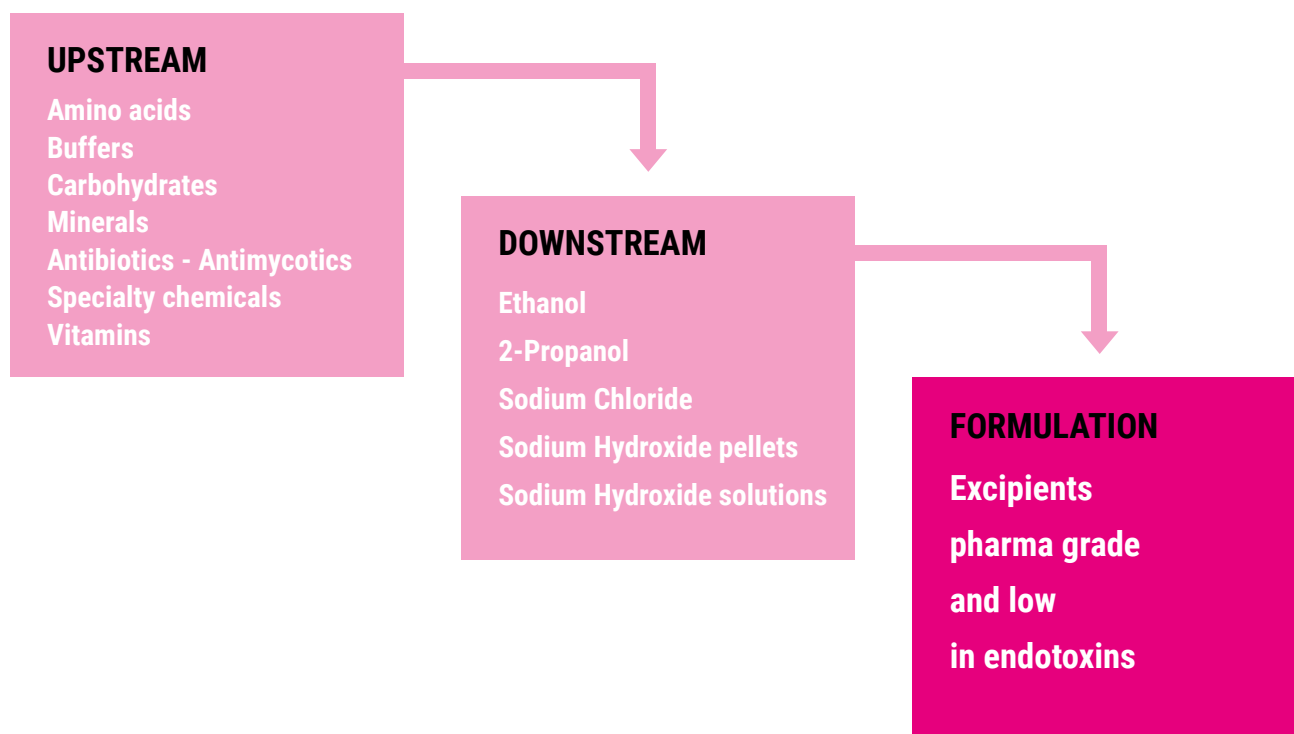


PanReac   
AppliChem  
ITW Reagents

**Vaccines** protect human life; the main challenges in their development and production are to accelerate the go to market process without compromising the high level of quality standards.

The right selection of excipients for **upstream, downstream and formulation processes** helps the vaccine manufacturers to reach efficiently their targets.

**ITW Reagents** supports the vaccine development and production with a comprehensive portfolio of high-quality excipients and specialty chemicals, also available for industrial-scale manufacturing process.



### Why us?

- Comprehensive portfolio for upstream, downstream and formulation
- High quality standard
- Low in endotoxins excipients
- Regulatory documentation available
- Product traceability

## Formulation

Selected best-in-class excipients to preserve and stabilize the formulated biological molecules, supporting the risk mitigation strategy for an efficient and safe vaccine.

Product code	Product name	CAS number
141008	Acetic Acid glacial (USP, BP, Ph. Eur.) pure, pharma grade	64-19-7
A0807	Cholesterol BioChemica	57-88-5
631018	Citric Acid 1-hydrate (Ph. Eur, BP, USP) GMP - IPEC grade	5949-29-1
141018	Citric Acid 1-hydrate (USP, BP, Ph. Eur., JP) pure, pharma grade	5949-29-1
141669	EDTA Disodium Salt 2-hydrate (USP, BP, Ph. Eur.) pure, pharma grade	6381-92-6
631086	Ethanol absolute (Ph. Eur, BP, USP, JP) GMP - IPEC grade	64-17-5
681086	Ethanol absolute (Ph. Eur, BP, USP, JP) low in endotoxins, GMP - IPEC grade*	64-17-5
143006	Hydrochloric Acid 10% w/w (USP-NF, Ph. Eur.) pure, pharma grade	7647-01-0
141020	Hydrochloric Acid 37% (USP-NF, BP, Ph. Eur.) pure, pharma grade	7647-01-0
A1341	L-Histidine base (Ph. Eur., USP) pure, pharma grade	71-00-1
A1591	L-Histidine Hydrochloride 1-hydrate (Ph. Eur.) pure, pharma grade	5934-29-2
141396	Magnesium Chloride 6-hydrate (BP, Ph. Eur.) pure, pharma grade	7791-18-6
631396	Magnesium Chloride 6-hydrate (Ph. Eur., BP) GMP - IPEC grade	7791-18-6
191494	Potassium Chloride (USP, BP, Ph. Eur.) pharma grade	7447-40-7
141509	Potassium di-Hydrogen Phosphate (USP-NF, BP, Ph. Eur.) pure, pharma grade	7778-77-0
141632	Sodium Acetate 3-hydrate (USP, BP, Ph. Eur.) pure, pharma grade	6131-90-4
631659	Sodium Chloride (Ph. Eur, BP, USP) low in endotoxins, GMP - IPEC grade*	7647-14-5
141659	Sodium Chloride (USP, BP, Ph. Eur., JP) pure, pharma grade	7647-14-5
631655	tri-Sodium Citrate 2-hydrate (Ph. Eur, BP, USP) GMP - IPEC grade	6132-04-3
141655	tri-Sodium Citrate 2-hydrate (USP, BP, Ph. Eur.) pure, pharma grade	6132-04-3
142507	di-Sodium Hydrogen Phosphate 2-hydrate (USP, BP, Ph. Eur.) pure, pharma grade	10028-24-7
631687	Sodium Hydroxide pellets (Ph. Eur, BP, USP, JP) GMP - IPEC grade	1310-73-2
141687	Sodium Hydroxide pellets (USP-NF, BP, Ph. Eur.) pure, pharma grade	1310-73-2
631621	D(+)-Sucrose (USP-NF, BP, Ph. Eur.) low in endotoxins, GMP - IPEC grade*	57-50-1
141621	D(+)-Sucrose (USP-NF, BP, Ph. Eur., JP) pure, pharma grade	57-50-1
Z41940	Tris (Hydroxymethyl) Aminomethane (USP, BP, Ph. Eur.) low in endotoxins pure, pharma grade*	77-86-1
141940	Tris (USP, BP, Ph. Eur.) pure, pharma grade	77-86-1
142050	Tween® 80 (USP-NF, BP, Ph. Eur.) pure, pharma grade	9005-65-6

\*Low in endotoxins excipients

This is a selection of excipients for vaccine formulation. If you have any other needs or requests, please contact us at [biopharma@itwreagents.com](mailto:biopharma@itwreagents.com) and we will be glad to support you.



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