

## Vaccine Excipient & Media Summary, Part 2

### Excipients Included in U.S. Vaccines, by Vaccine

Vaccine	Contains
Anthrax (BioThrax)	Aluminum Hydroxide, Amino Acids, Benzethonium Chloride, Formaldehyde or Formalin, Sodium Chloride, Vitamins (unspecified)
BCG (Tice)	Lactose, Sodium Chloride
DTaP (DAPTACEL)	Aluminum Phosphate, Aluminum Potassium Sulfate, Formaldehyde or Formalin, 2-Phenoxyethanol
DTaP (Infanrix)	Aluminum Hydroxide, Formaldehyde or Formalin, Glutaraldehyde, 2-Phenoxyethanol, Polysorbate 80
DTaP (Tripedia)	Aluminum Potassium Sulfate, Formaldehyde or Formalin, Gelatin, Polysorbate 80, Thimerosal*
DTaP (Most brands)	Hydrochloric Acid, Phosphate Buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate)
DTaP/Hib (TriHIBit)	Aluminum Potassium Sulfate, Ammonium Sulfate, Formaldehyde or Formalin, Gelatin, Polysorbate 80, Sucrose, Thimerosal*
DTaP/HepB/IPV (Pediatrix)	Aluminum Hydroxide, Formaldehyde or Formalin, Glutaraldehyde, Neomycin, 2-Phenoxyethanol, Polymyxin B, Polysorbate 80, Thimerosal*, Yeast Protein
DT (Aventis)	Aluminum Potassium Sulfate, Formaldehyde or Formalin
DT (Massachusetts)	Aluminum Hydroxide, Formaldehyde or Formalin
DT (Some brands)	Glycine, Hydrochloric Acid, Phosphate Buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Sodium Acetate, Sodium Hydroxide, Thimerosal (some multidose containers)
Hib (ACTHib)	Ammonium Sulfate, Formaldehyde or Formalin, Phosphate Buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Sucrose
Hib (PedvaxHib)	Aluminum Hydroxyphosphate Sulfate, Sodium Chloride
Hib (HibTITER)	Yeast Protein
Hib (Some packages)	Lactose
Hib/Hep B (Comvax)	Formaldehyde or Formalin, Sodium Borate, Yeast Protein
Hep A (Havrix)	Bovine Albumin or Serum, Aluminum Hydroxide, Amino Acids, Formaldehyde or Formalin, MRC-5 Cellular Protein, 2-Phenoxyethanol, Phosphate Buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Polysorbate 20
Hep A (Vaqta)	Bovine Albumin or Serum, DNA, Formaldehyde or Formalin, MRC-5 Cellular Protein, Sodium Borate
Hep B (Engerix-B)	Aluminum Hydroxide, Phosphate Buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Thimerosal*, Yeast Protein

<b>Vaccine</b>	<b>Contains</b>
Hep B (Recombivax)	Yeast Protein
HepA/HepB (Twinrix)	Aluminum Hydroxide, Aluminum Phosphate, Amino Acids, Formaldehyde or Formalin, MRC-5 Cellular Protein, Neomycin, 2-Phenoxyethanol, Phosphate Buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Polysorbate 20, Thimerosal*, Yeast Protein
Influenza (Fluarix)	Egg Albumin (Ovalbumin), Egg Protein, Formaldehyde or Formalin, Gentamicin, Hydrocortisone, Octoxynol-10, $\alpha$ -Tocopheryl Hydrogen Succinate, Polysorbate 80, Sodium Deoxycholate, Thimerosal*
Influenza (Fluvirin)	Beta-Propiolactone, Egg Protein, Neomycin, Polymyxin B, Polyoxyethylene 9-10 Nonyl Phenol (Triton N-101, Octoxynol 9), Thimerosal ( multidose containers)
Influenza (Fluzone)	Egg Protein, Formaldehyde or Formalin, Gelatin, Polyethylene glycol p-isooctylphenyl ether (Triton X-100), Thimerosal (multidose containers)
Influenza (FluMist)	Egg Protein, Gentamicin, Monosodium Glutamate, Phosphate Buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Sucrose
Influenza (varies seasonally)	Bactopectone
IPV (Ipol)	Formaldehyde or Formalin, Neomycin, 2-Phenoxyethanol, Phosphate Buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Polymyxin B, Sodium Chloride, Streptomycin
Japanese Encephalitis (JE-Vax)	Formaldehyde or Formalin, Gelatin, Mouse Serum Protein, Thimerosal
Measles (Attenuvax)	Human Serum Albumin, Bovine Albumin or Serum, Gelatin, Neomycin, Phosphate Buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Sodium Chloride, Sorbitol, Sucrose
Meningococcal (Menactra)	Phosphate Buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Sodium Chloride
Meningococcal (Menomune)	Lactose, Thimerosal (10-dose vials only)
Mumps (Mumpsvax)	Human Serum Albumin, Bovine Albumin or Serum, Gelatin, Neomycin, Phosphate Buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Sodium Chloride, Sorbitol, Sucrose
MMR (MMR-II)	Human Serum Albumin, Bovine Albumin or Serum, Gelatin, Neomycin, Phosphate Buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Sodium Chloride, Sorbitol, Sucrose
MMRV (ProQuad)	Sucrose, Gelatin, Sodium Chloride, Sorbitol, Monosodium L-glutamate, Human Serum Albumin, MRC-5 Cellular Protein, Neomycin, Bovine Albumin or Serum, Sodium Phosphate Dibasic, Sodium Bicarbonate, Potassium Phosphate Monobasic, Potassium Chloride, Potassium Phosphate Dibasic
Pneumococcal (Pneumovax)	Phenol, Sodium Chloride
Pneumococcal (Prevnar)	Aluminum Phosphate, Sodium Chloride

<b>Vaccine</b>	<b>Contains</b>
Rabies (Biorab)	Aluminum Phosphate, Phosphate Buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Sodium Chloride, Thimerosal
Rabies (Imovax)	Human Serum Albumin, Bovine Albumin or Serum, Beta-Propiolactone, MRC-5 Cellular Protein, Neomycin, Phenol Red (Phenolsulfonphthalein), Sodium Chloride, Vitamins (unspecified)
Rabies (RabAvert)	Egg Albumin (Ovalbumin), Bovine Albumin or Serum, Amphotericin B, Beta-Propiolactone, Chlortetracycline, Ethylenediamine-Tetraacetic Acid Sodium (EDTA), Gelatin, Neomycin, Potassium Glutamate, Sodium Chloride
Rubella (Meruvax II)	Human Serum Albumin, Bovine Albumin or Serum, Gelatin, Neomycin, Phosphate Buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Sodium Chloride, Sorbitol
Td (Decavac)	Aluminum Phosphate, Amino Acids, Formaldehyde or Formalin, 2-Phenoxyethanol, Thimerosal (some multidose containers), Vitamins (unspecified)
Td (Massachusetts)	Aluminum Hydroxide, Aluminum Phosphate, Formaldehyde or Formalin, Thimerosal (some multidose containers)
Td (Some Brands)	Glycine, Sodium Acetate, Sodium Hydroxide
Tdap (Adacel)	Aluminum Phosphate, Formaldehyde or Formalin, Glutaraldehyde, 2-Phenoxyethanol, Sodium Chloride
Tdap (Boostrix)	Aluminum Hydroxide, Formaldehyde or Formalin, Glutaraldehyde, Polysorbate 80
Typhoid (inactivated – Typhim Vi)	Phenol, Phosphate Buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Polydimethylsiloxane, Sodium Chloride
Typhoid (oral – TY21a)	Amino Acids, Ascorbic Acid, Gelatin, Lactose, Magnesium Stearate, Sucrose
Vaccinia (DryVax)	Bovine Albumin or Serum, Brilliant Green (historic), Chlortetracycline, Glycerin, Neomycin, Phenol, Polymyxin B, Streptomycin, Urea (refrigerator-stable formulation only)
Varicella (Varivax)	Bovine Albumin or Serum, Ethylenediamine-Tetraacetic Acid Sodium (EDTA), Gelatin, Monosodium Glutamate, MRC-5 Cellular Protein, Neomycin, Phosphate Buffers (e.g., disodium, monosodium, potassium, sodium dihydrogen phosphate), Sodium Chloride, Sucrose
Yellow Fever (YF-Vax)	Egg Protein, Gelatin, Sodium Chloride, Sorbitol

\*Where “thimerosal” is marked with an asterisk (\*) it indicates that the product should be considered equivalent to thimerosal-free products. This vaccine may contain trace amounts (<3 mcg) of mercury left after post-production thimerosal removal, but these amounts have no biological effect.

*JAMA* 1999;282(18) and *JAMA* 2000;283(16)

Adapted from Grabenstein JD. *ImmunoFacts: Vaccines & Immunologic Drugs*. St. Louis, MO: Wolters Kluwer Health Inc.; 2006 with additional content from individual products’ package inserts.