

Vaccine Excipient & Media Summary, Part 2

Excipients Included in U.S. Vaccines, by Vaccine

Includes vaccine ingredients (e.g., adjuvants and preservatives) as well as substances used during the manufacturing process, including vaccine-production media, that are removed from the final product and present only in trace quantities.

In addition to the substances listed, most vaccines contain Sodium Chloride (table salt).

Vaccine	Contains
Anthrax (BioThrax)	Aluminum Hydroxide, Amino Acids, Benzethonium Chloride, Formaldehyde or Formalin, Inorganic Salts and Sugars, Vitamins
BCG (Tice)	Asparagine, Citric Acid, Lactose, Glycerin, Iron Ammonium Citrate, Magnesium Sulfate, Potassium Phosphate
DTaP (Daptacel)	Aluminum Phosphate, Ammonium Sulfate, Casamino Acid, Dimethyl-beta-cyclodextrin, Formaldehyde or Formalin, Glutaraldehyde, 2-Phenoxyethanol
DTaP (Infanrix)	Aluminum Hydroxide, Bovine Extract, Formaldehyde or Formalin, Glutaraldehyde, 2-Phenoxyethanol, Polysorbate 80
DTaP (Tripedia)	Aluminum Potassium Sulfate, Ammonium Sulfate, Bovine Extract, Formaldehyde or Formalin, Gelatin, Polysorbate 80, Sodium Phosphate, Thimerosal*
DTaP/Hib (TriHIBit)	Aluminum Potassium Sulfate, Ammonium Sulfate, Bovine Extract, Formaldehyde or Formalin, Gelatin, Polysorbate 80, Sucrose, Thimerosal*
DTaP/HepB/IPV (Pediarix)	Aluminum Hydroxide, Aluminum Phosphate, Bovine Protein, Lactalbumin Hydrolysate, Formaldehyde or Formalin, Glutaraldehyde, Monkey Kidney Tissue, Neomycin, 2-Phenoxyethanol, Polymyxin B, Polysorbate 80, Yeast Protein
DT (sanofi)	Aluminum Potassium Sulfate, Bovine Extract, Formaldehyde or Formalin, Thimerosal (multi-dose) or Thimerosal* (single-dose)
DT (Massachusetts)	Aluminum Hydroxide, Formaldehyde or Formalin
Hib (ACTHib)	Ammonium Sulfate, Formaldehyde or Formalin, Sucrose
Hib (PedvaxHib)	Aluminum Hydroxyphosphate Sulfate
Hib/Hep B (Comvax)	Amino Acids, Aluminum Hydroxyphosphate Sulfate, Dextrose, Formaldehyde or Formalin, Mineral Salts, Sodium Borate, Soy Peptone, Yeast Protein
Hep A (Havrix)	Aluminum Hydroxide, Amino Acids, Formaldehyde or Formalin, MRC-5 Cellular Protein, Neomycin Sulfate, 2-Phenoxyethanol, Phosphate Buffers, Polysorbate
Hep A (Vaqta)	Aluminum Hydroxyphosphate Sulfate, Bovine Albumin or Serum, DNA, Formaldehyde or Formalin, MRC-5 Cellular Protein, Sodium Borate
Hep B (Engerix-B)	Aluminum Hydroxide, Phosphate Buffers, Thimerosal*, Yeast Protein
Hep B (Recombivax)	Aluminum Hydroxyphosphate Sulfate, Amino Acids, Dextrose, Formaldehyde or Formalin, Mineral Salts, Potassium Aluminum Sulfate, Soy Peptone, Yeast Protein
HepA/HepB (Twinrix)	Aluminum Hydroxide, Aluminum Phosphate, Amino Acids, Dextrose, Formaldehyde or Formalin, Inorganic Salts, MRC-5 Cellular Protein, Neomycin Sulfate, 2-Phenoxyethanol, Phosphate Buffers, Polysorbate 20, Thimerosal*, Vitamins, Yeast Protein

Vaccine	Contains
Human Papillomavirus (HPV) (Gardasil)	Amino Acids, Amorphous Aluminum Hydroxyphosphate Sulfate, Carbohydrates, L-histidine, Mineral Salts, Polysorbate 80, Sodium Borate, Vitamins
Influenza (Afluria)	Beta-Propiolactone, Calcium Chloride, Neomycin, Ovalbumin, Polymyxin B, Potassium Chloride, Potassium Phosphate, Sodium Phosphate, Sodium Taurodeoxychoalate.
Influenza (Fluarix)	Egg Albumin (Ovalbumin), Egg Protein, Formaldehyde or Formalin, Gentamicin, Hydrocortisone, Octoxynol-10, α -Tocopheryl Hydrogen Succinate, Polysorbate 80, Sodium Deoxycholate, Sodium Phosphate, Thimerosal*
Influenza (Flulaval)	Egg Albumin (Ovalbumin), Egg Protein, Formaldehyde or Formalin, Sodium Deoxycholate, Phosphate Buffers, Thimerosal
Influenza (Fluvirin)	Beta-Propiolactone , Egg Protein, Neomycin, Polymyxin B, Polyoxyethylene 9-10 Nonyl Phenol (Triton N-101, Octoxynol 9), Thimerosal (multidose containers), Thimerosal* (single-dose syringes)
Influenza (Fluzone)	Egg Protein, Formaldehyde or Formalin, Gelatin, Octoxinol-9 (Triton X-100), Thimerosal (multidose containers)
Influenza (FluMist)	Chick Kidney Cells, Egg Protein, Gentamicin Sulfate, Monosodium Glutamate, Sucrose Phosphate Glutamate Buffer
IPV (Ipol)	Calf Serum Protein, Formaldehyde or Formalin, Monkey Kidney Tissue, Neomycin, 2-Phenoxyethanol, Polymyxin B, Streptomycin,
Japanese Encephalitis (JE-Vax)	Formaldehyde or Formalin, Gelatin, Mouse Serum Protein, Polysorbate 80, Thimerosal
Measles (Attenuvax)	Amino Acid, Bovine Albumin or Serum, Chick Embryo Fibroblasts, Gelatin, Glutamate, Human Albumin, Neomycin, Phosphate, Sodium Phosphate, Sorbitol, Sucrose, Vitamins
Meningococcal (Menactra)	Formaldehyde or Formalin, Phosphate Buffers
Meningococcal (Menomune)	Lactose, Thimerosal (10-dose vials only)
Mumps (Mumpsvax)	Amino Acid, Bovine Albumin or Serum, Chick Embryo Fibroblasts, Human Serum Albumin, Gelatin, Glutamate, Neomycin, Phosphate Buffers, Sorbitol, Sucrose, Vitamins
MMR (MMR-II)	Amino Acid, Bovine Albumin or Serum, Chick Embryo Fibroblasts, Human Serum Albumin, Gelatin, Glutamate, Neomycin, Phosphate Buffers, Sorbitol, Sucrose, Vitamins
MMRV (ProQuad)	Bovine Albumin or Serum, Gelatin, Human Serum Albumin, Monosodium L-glutamate, MRC-5 Cellular Protein, Neomycin, Sodium Phosphate Dibasic, Sodium Bicarbonate, Sorbitol, Sucrose, Potassium Phosphate Monobasic, Potassium Chloride, Potassium Phosphate Dibasic
Pneumococcal (Pneumovax)	Bovine Protein, Phenol
Pneumococcal (Prevnar)	Aluminum Phosphate, Amino Acid, Soy Peptone, Yeast Extract
Rabies (Imovax)	Human Serum Albumin, Beta-Propiolactone, MRC-5 Cellular Protein, Neomycin, Phenol Red (Phenolsulfonphthalein), Vitamins

Vaccine	Contains
Rabies (RabAvert)	Amphotericin B, Beta-Propiolactone, Bovine Albumin or Serum, Chicken Protein, Chlortetracycline, Egg Albumin (Ovalbumin), Ethylenediamine-Tetraacetic Acid Sodium (EDTA), Neomycin, Potassium Glutamate
Rotavirus (RotaTeq)	Cell Culture Media, Fetal Bovine Serum, Sodium Citrate, Sodium Phosphate Monobasic Monohydrate, Sodium Hydroxide Sucrose, Polysorbate 80
Rotavirus (Rotarix)	Amino Acids, Calcium Carbonate, Calcium Chloride, D-glucose, Dextran, Ferric (III) Nitrate, L-cystine, L-tyrosine, Magnesium Sulfate, Phenol Red, Potassium Chloride, Sodium Hydrogenocarbonate, Sodium Phosphate, Sodium L-glutamine, Sodium Pyruvate, Sorbitol, Sucrose, Vitamins, Xanthan
Rubella (Meruvax II)	Bovine Albumin or Serum, Gelatin, Human Serum Albumin, Neomycin, Phosphate Buffers, Sodium Phosphate, Sorbitol
Td (Decavac)	Aluminum Potassium Sulfate, Bovine Extract, Formaldehyde or Formalin, 2-Phenoxyethanol, Peptone, Thimerosal*
Td (Massachusetts)	Aluminum Hydroxide, Aluminum Phosphate, Formaldehyde or Formalin, Thimerosal (some multidose containers)
Tdap (Adacel)	Aluminum Phosphate, Formaldehyde or Formalin, Glutaraldehyde, 2-Phenoxyethanol
Tdap (Boostrix)	Aluminum Hydroxide, Bovine Extract, Formaldehyde or Formalin, Glutaraldehyde, Polysorbate 80
Typhoid (inactivated – Typhim Vi)	Disodium Phosphate, Monosodium Phosphate, Phenol, Polydimethylsiloxane, Hexadecyltrimethylammonium Bromide
Typhoid (oral – Ty21a)	Amino Acids, Ascorbic Acid, Bovine Protein, Casein, Dextrose, Galactose, Gelatin, Lactose, Magnesium Stearate, Sucrose, Yeast Extract
Vaccinia (ACAM2000)	Glycerin, Human Serum Albumin, Mannitol, Monkey Kidney Cells, Neomycin, Phenol, Polymyxin B
Varicella (Varivax)	Bovine Albumin or Serum, Ethylenediamine-Tetraacetic Acid Sodium (EDTA), Gelatin, Monosodium L-Glutamate, MRC-5 DNA and Cellular Protein, Neomycin, Potassium Chloride, Potassium Phosphate Monobasic, Sodium Phosphate Monobasic, Sucrose
Yellow Fever (YF-Vax)	Egg Protein, Gelatin, Sorbitol
Zoster (Zostavax)	Bovine Calf Serum, Hydrolyzed Porcine Gelatin, Monosodium L-glutamate, MRC-5 DNA and Cellular Protein, Neomycin, Potassium Phosphate Monobasic, Potassium Chloride, Sodium Phosphate Dibasic, Sucrose

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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 (<0.3 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 and individual products’ package inserts.

All reasonable efforts have been made to ensure the accuracy of this information, but manufacturers may change product contents before that information is reflected here.