

Haemophilus influenzae B Polyribosyl phosphate (Hib-PRP) Antigen ELISA Kit # 980-HIB-AG1

Hib-PRP antigen ELISA is designed to measure the Hib-PRP (Polyribosyl phosphate), an active component of Hib vaccines in free form or in conjugation with carrier proteins such as tetanus toxoid, diphtheria toxoid or OMPC of various Hib vaccines. It is the first commercial ELISA kit based on sandwich ELISA utilizing highly specific PRP antibodies. The ELISA has a sensitivity of 0.2 ng/ml (105 mins at room temp). Most vaccines will require a dilution of 1:500-1:5000 depending upon the PRP concentration. The test is conducted at room temp in about 105 mins. Hib-PRP antigen ELISA will be useful for vaccine manufacturers and researchers for quality control and lot releases. The kit will also serve the needs of vaccine regulators to identify and establish the concentration of active vaccine components.

Haemophilus influenzae type B vaccine (Hib janan or PRP vaccine is a conjugate vaccine developed for the prevention of invasive disease caused by Haemophilus influenzae type b bacteria. Vaccinations against H. influenzae (Hib) have decreased early childhood meningitis significantly in developed countries and recently in developing countries.

Several Hib vaccines are now available for routine use against Hib that can be used **alone or in combination** with other vaccines (multivalent). Earlier polysaccharide vaccines contained only **non-conjugated** Hib-PRP and it only produced age-dependent and variable immunity. There are currently three types of **conjugate vaccine** utilizing different proteins in the conjugation process, all of which are highly effective: tetanospasmin (also called tetanus toxin/toxoid/TT), mutant diphtheria protein (DT/CRM197), and meningococcal group B outer membrane proteins. **Hib vaccine combined with diphtheria-tetanus-pertussis-polio vaccines and Hepatitis B vaccines** are available in the US. Hib conjugate vaccines have been shown to be universally effective against all manifestations of Hib disease, with a clinical efficacy among fully vaccinated children estimated to be between 95-100%. **Hib Vaccines:** Influenzae B Comvax (HepB/Hib; Merck), PedvaxHib (Hib-PRP-OMP) –Merck; Trihibit (DTAP/Hib), ActHib (Hib-PRP-T) - Sanofi Pasteur; HibTiter (Hib-Hboc) – WyethLederle

Hib-PRP antigen ELISA Kit #980-HIB-AG1

- Highly purified anti-PRP IgG coated plates;
- Highly purified PRP standards** at 0-100 ng/ml
- Samples 100 ul (diluted vaccine 1:500 or more)
- 3 incubations at room temp (60+30+15 min) or 105 min assay.
- Sensitivity ~0.2 ng/ml; Shelf Life ~6-12 months.
- Good assay precision
- ELISA validated with Act-Hib vaccine (Sanofi).

General assay procedure etc.

- Step 1.** Pipet **100 ul** each of pre-diluted standards (0-100 ng/ml), and samples.
- Step 2.** Mix gently for 5-10 seconds and incubate for **60 min at room temp (RT)**.
- Step 3.** **Wash 3X using supplied wash buffer.** Add **100 ul of Antibody-HRP** conjugate, mix and incubate at RT for **30 min**.
- Step 4.** **Wash 4X using supplied wash buffer.** Add **100 ul of Substrate** solution to all wells, mix and incubate at RT for **15 min**. Blue color develops in standards and positive samples.
- Step 5.** Pipet **100 ul of stop solution** into all tubes, mix gently (blue color turns yellow).
- Step 6.** **Measure OD at A450 nm.** PRP concn calculated from the standard curve.

Hib Vaccine Related Reagents and ELISA kits

Items Description	Kit Type	Species	Antibody Type IgG Cat#	Antibody Type IgM Cat#
Hib Vaccine Anti-Polyribosyl phosphate (Hib-PRP) Antibody ELISA Kit, Note: this kit measures antibody to the PRP-moiety and not the conjugated proteins.	Antibody (PRP)	Human	980-100-PHG	980-110-PHM
	Antibody (PRP)	Monkey	980-150-PKG	
	Antibody (PRP)	Mouse	980-120-PMG	980-130-PHM
	Antibody (PRP)	Rabbit	980-130-PRG	980-140-PRM
Hib Vaccine Anti-Diphtheria Toxoid (DT/Dtox) Antibody ELISA Kit, Note: this kit measures antibody to DT, the conjugating protein of Hib vaccines	Antibody (DT)	Human	940-100-DHG	940-110-DHM
	Antibody (DT)	Mouse	940-120-DMG	940-125-DMM
	Antibody (DT)	Rabbit	980-130-PRG	980-140-PRM
Hib Vaccine Anti-Tetanus Toxoid (TT/Ttox) Antibody ELISA Kit, Note: this kit measures antibody to TT, the conjugating protein of Hib vaccines	Antibody (TT)	Human	930-100-TTH	
	Antibody (TT)	Mouse	930-130-TMG	930-130-TTM
	Antibody (TT)	Rabbit	930-210-TRG	930-220-TRM
Hib-PRP antigen ELISA kit for measuring PRP (free antigen) or in vaccines, 96 tests new	Antigen		#980-HIB-AG1 (96 tests)	



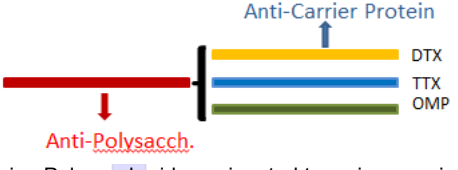
980-HIB-AG1-flr 140310A

Haemophilus influenzae B (Hib) Vaccine identifications and ELISA Kits

Haemophilus influenzae type B vaccine (Hib janan or PRP vaccine is a conjugate vaccine developed for the prevention of invasive disease caused by Haemophilus influenzae type b bacteria. In 1930, 2 major categories of H. influenzae were defined: the **unencapsulated** strains and the **encapsulated** strains. Encapsulated strains were classified on the basis of their distinct capsular antigens. There are six generally recognized types of encapsulated H. influenzae: a, b, c, d, e, and f. Genetic diversity among unencapsulated strains is greater than within the encapsulated group. The presence of the capsule in encapsulated type b (Hib), a serotype causing conditions such as epiglottitis, is known to be a major factor in virulence. Their capsule allows them to resist phagocytosis and complement-mediated lysis in the non-immune host. Several **Hib vaccines** are now available for routine use against Hib that can be used alone or in combination with other vaccines (multivalent). Earlier polysaccharide vaccines contained only non-conjugated Hib-PRP and it only produced age-dependent

and variable immunity. There are currently three types of **conjugate vaccine** utilizing different proteins in the conjugation process, all of which are highly effective: tetanospasmin (also called **tetanus toxin/toxoid/TT**), mutant **diphtheria protein** (DT/CRM197), and **meningococcal group B outer membrane proteins**. Hib vaccine combined with diphtheria-tetanus-pertussis-polio vaccines and Hepatitis B vaccines are available in the US. Hib conjugate vaccines have been shown to be universally effective against all manifestations of Hib disease, with a clinical efficacy among fully vaccinated children estimated to be between 95-100%. Hib vaccine is not effective against non-type B Haemophilus influenzae. However, non-type B disease is rare in comparison to pre-vaccine Haemophilus influenzae type B disease.

Hib Vaccines: Influenzae B Comvax (HepB/Hib; Merck), PedvaxHib (Hib-PRP-OMP) –Merck; Trihibit (DTAP/Hib), ActHib (Hib-PRP-T) - Sanofi Pasteur; HibTiter (Hib-Hboc) – WyethLederle.

 <p>ActHib (Sanofi)</p>	 <p>PedavaxHib (PRP-OMP) Merck</p>	 <p>Hib Vaccine Polysaccharide conjugated to various carrier protein</p>
--	---	--

It is necessary to monitor the efficacy of vaccines and determine the anti-H. influenza B IgG levels in patients or for clinical trials using new formulation of vaccines. ADI has developed industry's first ELISA kit to determine the antibodies to Hib vaccine's PRP only. ADI also have separate ELISA kit to measure antibodies to Diphtheria Toxoid, Tetanus Toxoid or HBsAg (the PRP-carrier proteins). 's mouse Anti- H. influenza B PRP IgG ELISA kit is an immunoassay for the quantitative determination of IgG class antibodies against Hib-PRP following vaccination.

diphtheria toxoid or OMPC of various Hib vaccines. It is the first commercial ELISA kit based on sandwich ELISA utilizing highly specific PRP antibodies. The ELISA has a sensitivity of 0.2 ng/ml (105 mins at room temp). Most vaccines will require a dilution of 1:500-1:5000 depending upon the PRP concentration. The test is conducted at room temp in about 105 mins. Hib-PRP antigen ELISA will be useful for vaccine manufacturers and researchers for quality control and lot releases. The kit will also serve the needs of vaccine regulators to identify and establish the concentration of active vaccine components.

Hib-PRP antigen ELISA is designed to measure the Hib-PRP (Polyribosyl phosphate), an active component of Hib vaccines in free form or in conjugation with carrier proteins such as tetanus toxoid,

Hib Vaccines: Influenzae B Comvax (HepB/Hib; Merck), PedvaxHib (Hib-PRP-OMP) –Merck; Trihibit (DTAP/Hib), ActHib (Hib-PRP-T) - Sanofi Pasteur; HibTiter (Hib-Hboc) – WyethLederle

Hib Vaccine Related Reagents and ELISA kits

Items Description	Kit Type	Species	Antibody Type IgG Cat#	Antibody Type IgM Cat#
Hib Vaccine Anti-Polyribosyl phosphate (Hib-PRP) Antibody ELISA Kit, Note: this kit measures antibody to the PRP-moiety and not the conjugated proteins.	Antibody (PRP)	Human	980-100-PHG	980-110-PHM
	Antibody (PRP)	Monkey	980-150-PKG	
	Antibody (PRP)	Mouse	980-120-PMG	980-130-PHM
	Antibody (PRP)	Rabbit	980-130-PRG	980-140-PRM
Hib Vaccine Anti-Diphtheria Toxoid (DT/Dtox) Antibody ELISA Kit, Note: this kit measures antibody to the DT, the conjugating protein of Hib vaccines	Antibody (DT)	Human	940-100-DHG	940-110-DHM
	Antibody (DT)	Mouse	940-120-DMG	940-125-DMM
	Antibody (DT)	Rabbit	980-130-PRG	980-140-PRM
Hib Vaccine Anti-Tetanus Toxoid (TT/Ttox) Antibody ELISA Kit, Note: this kit measures antibody to the TT, the conjugating protein of Hib vaccines	Antibody (TT)	Human	930-100-TTH	
	Antibody (TT)	Mouse	930-130-TMG	930-130-TTM
	Antibody (TT)	Rabbit	930-210-TRG	930-220-TRM
Hib-PRP antigen ELISA kit for measuring PRP (free antigen) or in vaccines, 96 tests new	Antigen		#980-HIB-AG1 (96 tests)	
ID-Vac™ Hib Vaccines Identification Kit (a rapid test to confirm the identity of commercial vaccines)	Vaccine Identification		980-VID-Hib-48 (48 tests) 980-VID-Hib-96 (96 tests)	
Human Anti-Hib-PRP IgG –ve and +ve controls	Hib-PRP IgG Control sera		980-101-HNC (-ve control, several samples) 980-101-HNC (+ve control, several samples)	

India Contact:

Life Technologies (India) Pvt. Ltd.

Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444

Email: customerservice@lifetechindia.com Website: www.lifetechindia.com