

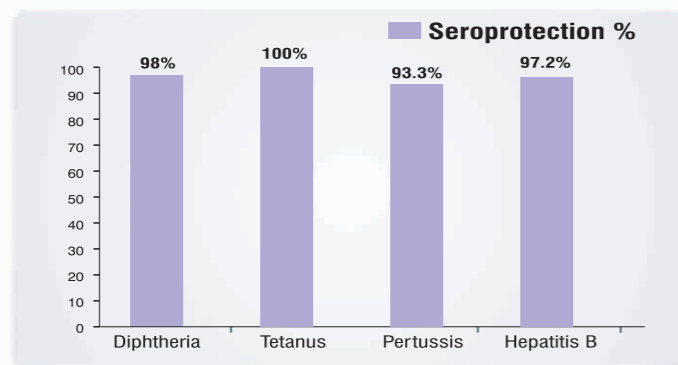
Indigenously manufactured combination vaccine for **consistent quality & stable combination**

Presenting **ComVac4-HB™**
Diphtheria, Tetanus, Pertussis & Recombinant Hepatitis B Vaccine



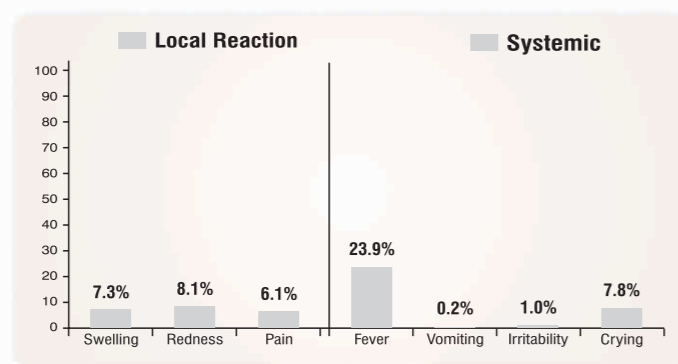
- Minimises dropouts and missed schedules, leading to better outcome
- Blending chemistry perfected for high degree immunity

Immunogenicity profile²



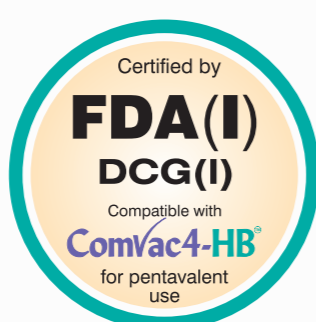
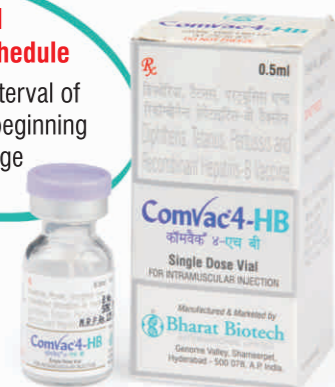
- Well-tolerated reactogenicity profile

Reactogenicity profile²



Recommended vaccination schedule

3 doses at an interval of 1 month each, beginning 6 weeks of age



Combine for Convenience



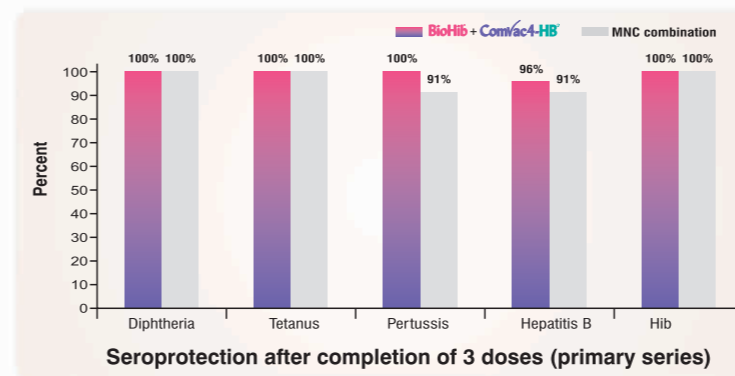
BioHib

ComVac4-HB

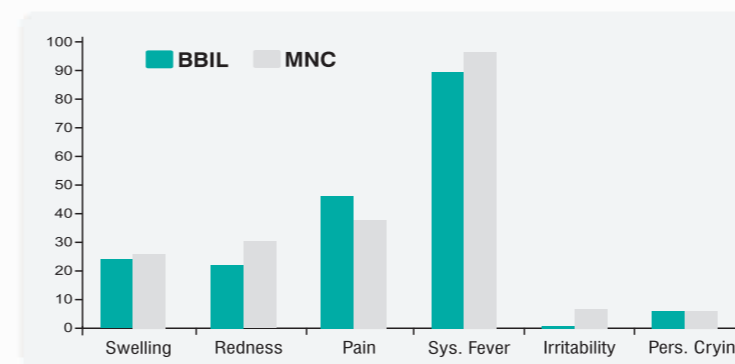


Reconstitution into pentavalent

Confers adequate protection²



Efficacy profile

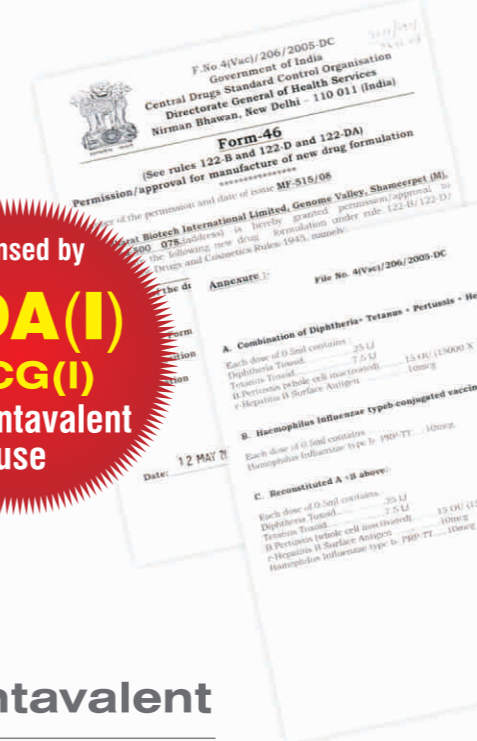


Reactogenicity profile

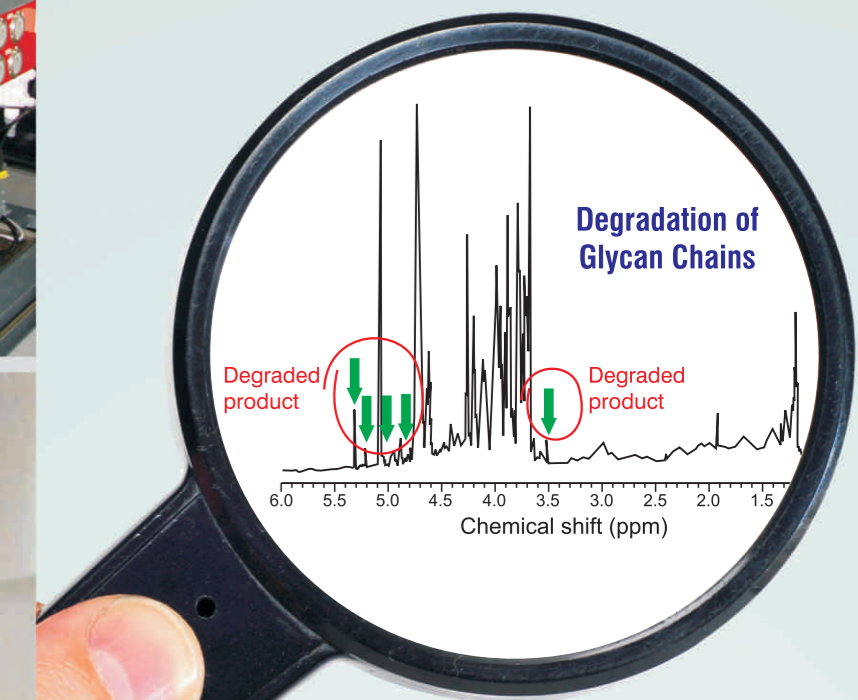
Priced favourably too !

Reconstitution of **BioHib + ComVac4-HB**
Convenient option... better protection

For more details, please contact: Bharat Biotech International Limited
E-mail: immutika@bharatbiotech.com; Website: www.bharatbiotech.com



In Hib Vaccine, **Poor conjugation** results in **“unbound PRP”** leading to vaccine degradation and reduced immune response



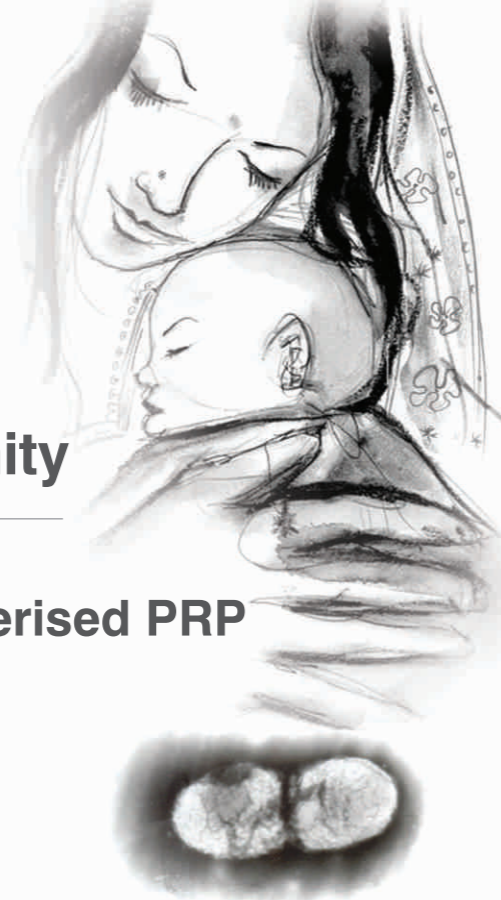
BioHib - The inside story

For the use only of a Registered Medical Practitioner or a Hospital or a Laboratory.

BioHib™

(Haemophilus type b Tetanus Toxoid Conjugate Vaccine (Lyophilized))

Stable conjugation, better immunity



The right strain with well characterised PRP

BioHib - Strain characterised (validated) at Culture Collection Centre, University of Göteborg (CCUG), Sweden - Institute of International repute

- Hib strain CS-68 has been isolated from CSF of a 4 months old male subject

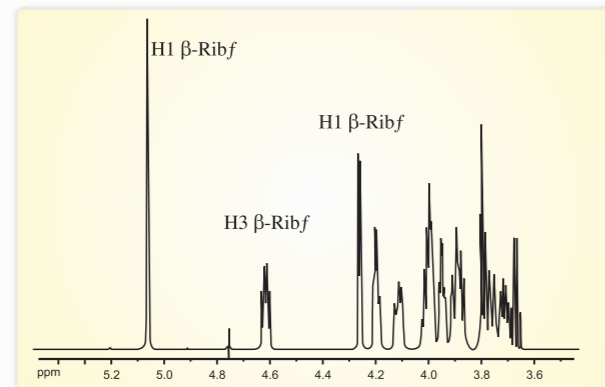


- Haemophilus influenzae type b requires blood derived factors X (hemin) & V (NAD) for growth

BioHib - PRP (Poly Ribosylribitol Phosphate) purified and graded for uniform size for batch-to-batch consistency and validated at University of Cape Town, South Africa



Biochromatograph, helps in size exclusion chromatography for uniform size of PRP



Nuclear Magnetic Resonance (NMR) is like finger print to identify PRP

BioHib™

(Haemophilus type b Tetanus Toxoid Conjugate Vaccine (Lyophilized))

Stable conjugation, better immunity

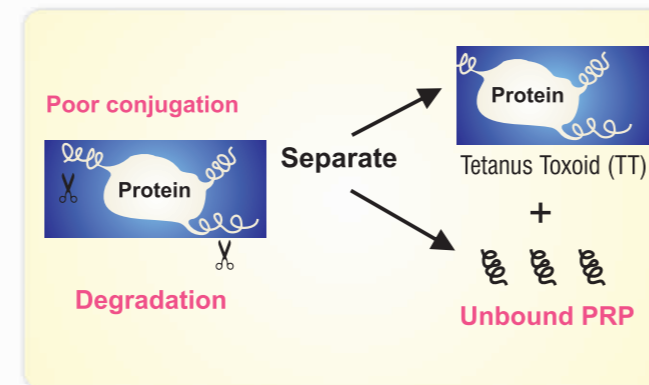


Conjugation chemistry

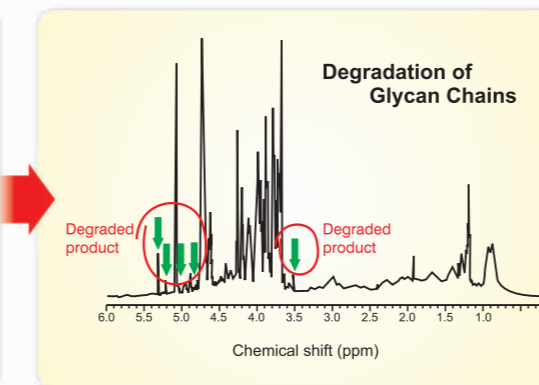
The key technology for an effective conjugate vaccine

Poor conjugation results in **“unbound PRP”**

- Reduces immune response¹



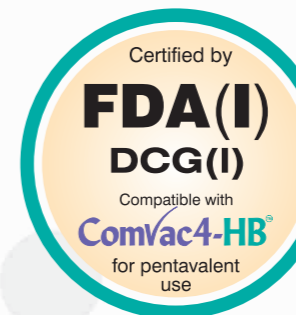
- Adversely affects vaccine stability¹



BioHib - based on CNBr (Cyanogen Bromide) activation for binding PRP to TT, for a stable conjugation

BioHib - ensures PRP / Protein (TT) ratio 0.30 - 0.55, for vaccine consistency

with **BioHib** you are sure !



BioHib™

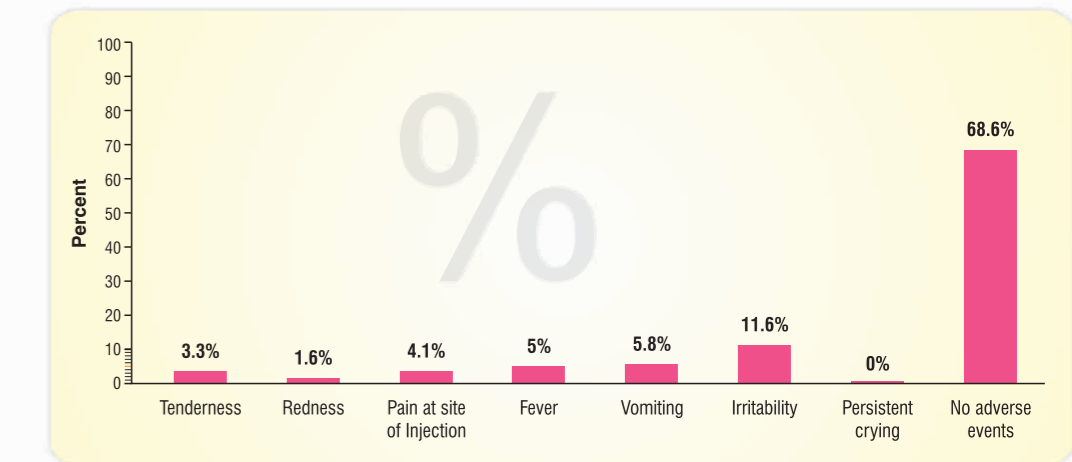
(Haemophilus type b Tetanus Toxoid Conjugate Vaccine (Lyophilized))

Stable conjugation, better immunity

Offers excellent immunogenicity & safety²

- ◆ 96% seroprotection after completion of the primary series
- ◆ **Preservative free presentation**, offering unmatched safety (No Thiomersal)

Well tolerated reactogenicity profile²



Recommended vaccination schedule

Age	No. of doses	Booster
6 weeks up to 6 months	3 doses 1 month apart	1 year after 3 rd Injection
6 months up to 12 months	2 doses 1 month apart	1 year after 2 nd Injection
1 year up to 5 years	1 dose	—
Over 5 years	Not recommended	—

Backed by years of **manufacturing expertise and exports to regulated markets**