



HVT recombinant vaccines are new to the poultry industry. Following are some common questions and answers prepared to help you better understand what these vaccines are and how they work.

What ARE INNOVAX®-ILT and INNOVAX®-ILT-SB vaccines?

These vaccines are recombinant HVT-vectored infectious laryngotracheitis (ILT) vaccines.

What is a “recombinant HVT ILT vaccines”?

HVT is a turkey herpes virus vaccine used to aid in the prevention of Marek’s Disease in chickens. A recombinant HVT is one in which genetic material from another virus (in this case, ILTV) has been inserted into the genome of the HVT virus at a site which does not have significant impact on the function of the HVT virus itself. **INNOVAX-ILT** is the recombinant HVT-ILT virus, while **INNOVAX-ILT-SB** uses the same rHVT-ILT but is also combined with a conventional serotype 2 SB 1 Marek’s Disease vaccine.

Does inserting new genetic material hurt the ability of the HVT virus to protect against Marek’s Disease?

No, the efficacy of a recombinant HVT vaccine against Marek’s challenge is dependent upon the location of the insertion of the foreign gene(s). Standard challenge studies with **INNOVAX-ILT** vaccine demonstrate normal protection against standard Marek’s Disease challenge.

Can we use the INNOVAX-ILT* vaccine with other Marek’s Disease Vaccines?

No, DO NOT use these vaccines together with regular HVT or recombinant HVT vaccines. Other HVT vaccines have been shown to interfere with immunity to the foreign genes inserted into any recombinant HVT vaccine. In other words, you may be protected against HVT, but not against ILT.

However, **INNOVAX-ILT** vaccine can be safely used with SB 1 MDV vaccine. **INNOVAX ILT-SB** is already combined with SB 1 for convenience. In addition, birds subcutaneously vaccinated at 1 day of age** with **INNOVAX-ILT** in combination with Rismavac® (CVI 988) showed no interference with ILT efficacy.

What is inserted into the recombinant HVT?

Merck Animal Health researchers have inserted two immunogenic ILT glycoprotein genes (gI and gD) that are keys to the protective immune response against ILT. The immune system of the chicken responds to these proteins as though they were on an actual ILT virus.

Are these live ILT viruses?

No, the **INNOVAX-ILT*** vaccines are live HVT recombinant vaccines containing two ILTV genes that code for two protective ILTV proteins. There is NO live ILT virus in these vaccines. The vaccines cannot induce ILT reaction, spread ILT virus or interfere with other respiratory vaccines.

Can I use a partial dose of this vaccine?

No, dilution or partial dose of the vaccine will delay the onset of immunity or may reduce efficacy. DO NOT USE LESS THAN THE FULL LABEL-RECOMMENDED DOSAGE.

What is the onset of immunity against ILT?

Although partial immunity can be detected earlier, protection against ILTV challenge is not complete until four weeks of age. Careful biosecurity must be maintained to avoid exposure to ILT infection prior to four weeks of age.

*Applies to Innovax® ILT-SB also

What is the duration of immunity against ILT?

Studies have demonstrated durable ILT protection through 60 weeks of age. The rHVT-ILT is a herpes virus: it is never completely eliminated from the body. Like HVT, it will persist and replicate life-long in the vaccinated bird. This persistence means that in addition to MDV, ILT immunity is induced that will remain effective for the life of the flock.

What are key problems that could result in an outbreak of ILT in an INNOVAX-ILT* vaccinated flock?

Several key problems could result in incomplete protection of a flock:

1. Faulty administration of the rHVT vaccines at the hatchery.

The rHVT vaccines do not spread. Birds that are missed during in ovo or subcutaneous vaccination at the hatchery will remain naïve. They will not develop an immune response to ILT. Partial dosage is never recommended with recombinant HVT vaccines. Even if two percent are missed, mortality could be 2,000 birds out of 100,000.

2. Simultaneous or subsequent vaccination with HVT vaccine.

Regular HVT vaccine will interfere with the response to the recombinant HVT vaccines. They should never be used in combination with **INNOVAX-ILT** vaccines. However, **INNOVAX-ILT** vaccine can be safely used with SB 1 MDV vaccine. **INNOVAX-ILT-SB** is already combined with SB 1 for convenience. In addition, birds subcutaneously vaccinated at 1 day of age with **INNOVAX-ILT** in combination with Rismovac® (CVI 988) showed no interference with ILT efficacy.

3. Simultaneous or subsequent vaccination with other rHVT vaccines. INNOVAX-ILT* should not be used in combination with other recombinant HVT products.

The vaccines may interfere with protection against one or both gene insertions.

4. Early exposure to ILT challenge. Full protection against ILT may take up to four weeks of age. Earlier challenge may cause some clinical signs or mortality, but severity may be reduced by partial immunity.

What are the advantages of using INNOVAX-ILT and INNOVAX-ILT-SB vaccines instead of conventional live ILT vaccines?

The live ILT vaccines produced in chicken embryos can spread from bird-to-bird, house-to-house or farm-to-farm. They can produce respiratory or ocular reactions. Live ILT vaccines compete with Newcastle Disease, infectious bronchitis and live Mycoplasma gallisepticum vaccines in the respiratory tract. **INNOVAX-ILT** vaccines induces immunity against ILT without any of these negative side effects. No interference with other respiratory vaccines. No reactions. **INNOVAX-ILT** vaccines will not spread or induce latency of ILTV, no risk of ILTV vaccine related ILT breaks. **INNOVAX-ILT** is administered at the hatchery: no labor is required for field vaccination of flocks, and flocks do not suffer the stress of being handled for vaccination in the field.

**Data on file. Innovax-ILT and Innovax-ILT-SB are also approved for in ovo use.



If there are additional questions relating to the HVT recombinant vaccines or any other Merck Animal Health vaccines and products, please call Technical Services at 1-800-211-3573. You may also visit our website at www.innovaxvaccines.com or www.merck-animal-health-usa.com for more information.

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