

# Recombinant Tetanus Toxin, Heavy Chain Fragment C

## Product Information

---

**Cat#**

CLO-084

---

**Product Name**

Recombinant Tetanus Toxin, Heavy Chain Fragment C

---

**Description**

Tetanus toxin, recombinant heavy chain fragment C is a recombinant protein that is devoid of the toxin's enzymatic activity but contains the binding site necessary for uptake of the toxin by neurons, and is the most immunogenic part of the toxin. Fragment C contains the powerful T cell epitopes of tetanus toxin without the toxicity.

---

**Type**

Recombinant

---

**Gene**

Tetanus Toxin (Heavy Chain Fragment C)

---

**Source**

E. coli

---

**Synonyms**

Tetanus Toxin, Heavy Chain Fragment C

---

**Formulation**

PBS, 10% glycerol, pH7.4.

---

**Purity**

>98% purity by SEC HPLC.

---

**Background**

TT heavy chain fragment is the C terminal fragment of the toxin (Helting & Zwisler, 1977). It is devoid of the toxin's enzymatic activity but contains the binding site necessary for uptake of

## **Recombinant Tetanus Toxin, Heavy Chain Fragment C**

the toxin by neurons (Roux et al., 2015; Sinha et al., 2000) and is the most immunogenic part of the toxin (Ramakrishnan et al., 2015). Fragment C contains the powerful T cell epitopes of tetanus toxin without the toxicity.

Tetanus toxoid (TT) is frequently used as a carrier protein for conjugate vaccines, in addition to being a component of the DPT vaccine. TT contains strong T cell epitopes. However, as a toxoided protein, many of the surface lysines are blocked by the toxoiding process.

Furthermore, TT is not a uniform product, since each manufacturer has its own specific toxoiding and purification process. Tetanus toxoid also tends to aggregate with age and is not generally affordable in the quantities needed for research and early clinical work.

Recombinant TT combines the advantages of the toxoid with the reproducibility of a recombinant protein.

---