

Product Specification Sheet

**Monkey Anti-Tetanus Toxin/Toxoid Antibody controls**

<input type="checkbox"/> 930-410-01N	Monkey (cynomolgous) Anti-Tetanus Toxin/Toxoid IgG negative serum	2 ml
<input type="checkbox"/> 930-410-02P	Monkey (cynomolgous) Anti-Tetanus Toxin/Toxoid IgG positive serum	2 ml

Tetanus, also known as lockjaw, is a disease caused by the bacteria *Clostridium tetani* which enters the body through open wounds and releases a poison called tetanospasmin. This is a potentially deadly disease because the poison attacks the nervous system blocking nerve signals from the spinal cord to and from the muscles. However this disease is preventable through injecting multiples doses of vaccines and administering the recommended booster shot every ten years. Tetanus vaccine is a vaccine composed of inactivated tetanus toxin. This vaccine is immunogenic not pathogenic and is used to prevent an individual from contracting tetanus.

Tetanus toxin is also called spasmogenic toxin, tetanospasmin or abbreviated to **TeTx or TeNT**. The tetanus toxin protein has a molecular weight of 150kDa. It is translated from the TetX gene as one protein which is subsequently cleaved into two parts: a 100kDa H-chain or heavy chain or B-chain and a 50kDa amino terminal light or A-chain (C-fragment). The light chain contains the enzymatic portion of the toxin and is responsible for its toxic effects. The light chain activity is abolished by a mutation at His233 to either Cys or Val or Glu234 to Gln. H-chain further cleavage into Hn (amino terminal) and Hc (carboxy terminal) fragments. The chains are connected by a disulfide bond. The B-chain binds to disialogangliosides (GD2 and GD1b) on the neuronal membrane and contains a translocation domain which aids the movement of the protein across that membrane and into the neuron. The A-chain, a zinc endopeptidase, attacks the vesicle-associated membrane protein (VAMP).

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Toxoid refers to the inactivated version of the active toxin. It is typically produced by formaldehyde inactivation of the active protein.

**Storage**

**Short-term:** unopened, undiluted vials for less than a week at 4°C.

**Long-term:** at -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20°C or below.

**Shipping:** 4°C for solutions and room temp for powder.

**Source of Antibodies**

Monkey serum (cynomolgous) containing antibodies to tetanus toxin as tested by monkey anti-tetanus toxoid IgG ELISA kit #930-410-TKG. The positive serum tested positive with A450 values of >1.0 (3-10 U/ml). The negative serum produced A450 values of <0.2 (<0.3 U/ml). Control sera are provided in a stabilizing buffer and 0.05% azide. Store liquid at 4°C for up to 3 months or frozen in suitable size aliquots.

Recommended as positive and negative controls for monkey anti-Tetanus toxoid IgG by ELISA (#930-410-TKG). **Use undiluted in 50-100 ul per well** or dilute as necessary depending upon the sensitivity of the detection. The controls may register different values if tested in a kit from a different manufacturer.

**General References:** Farrar JJ (2000) J. Neurol. Neurosurg. Psych. 69, 292-301; Eisel U (1986) EMBO J. 5, 2495-2502; Schiavo G (1992) Nature 359, 832-835.

\*This product is for In vitro research use only.

**Related material available from ADI**

930-100-TTH	Human Anti-Tetanus Toxin/Toxoid IgG ELISA kit, 96
930-110-TTM	Mouse Anti-Tetanus Toxin/Toxoid Ig's (G+A+M) ELISA kit, 2x96 tests, Quantitative
930-120-TMA	Mouse Anti-Tetanus Toxin/Toxoid IgA ELISA kit, 2x96
930-130-TMG	Mouse Anti-Tetanus Toxin/Toxoid IgG ELISA kit, 2x96
930-140-TMM	Mouse Anti-Tetanus Toxin/Toxoid IgM ELISA kit, 2x96
930-200-TTR	Rabbit Anti-Tetanus Toxin/Toxoid Ig's (G+A+M) ELISA kit, 2x96 tests, Quantitative
930-210-TRG	Rabbit Anti-Tetanus Toxin/Toxoid IgG ELISA kit, 2x96
930-410-TKG	Monkey Anti-Tetanus Toxin/Toxoid IgG ELISA kit, 96 tests, Quantitative
930-415-TKM	Monkey Anti-Tetanus Toxin/Toxoid IgM ELISA kit, 96 tests, Quantitative
930-410-01N	Monkey (cynomolgous) Anti-Tetanus Toxin/Toxoid IgG negative serum
930-410-02P	Monkey (cynomolgous) Anti-Tetanus Toxin/Toxoid IgG positive serum
930-410-03N	Monkey (Rhesus) Anti-Tetanus Toxin/Toxoid IgG negative serum
930-410-04P	Monkey (Rhesus) Anti-Tetanus Toxin/Toxoid IgG positive serum
930-410-05N	Monkey (Baboon) Anti-Tetanus Toxin/Toxoid IgG negative serum
930-410-06P	Monkey (Baboon) Anti-Tetanus Toxin/Toxoid IgG positive serum

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