

DESCRIPTION

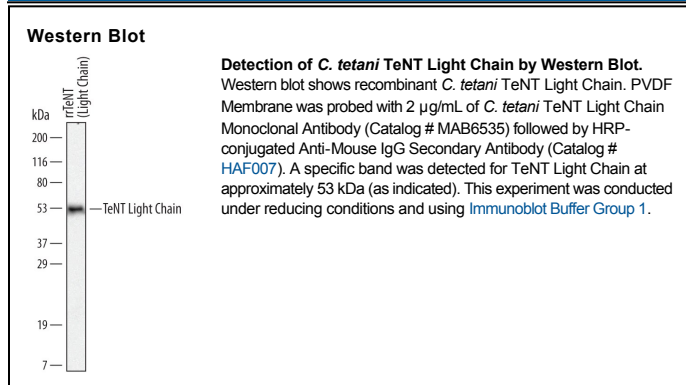
Species Reactivity	C. tetani
Specificity	Detects TeNT Light Chain in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant TeNT Heavy Chain is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 604023
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	E. coli-derived recombinant C. tetani TeNT Light Chain Pro2-Gly430 Accession # P04958
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Cell lysates spiked with recombinant C. tetani TeNT Light Chain, see our available Western blot detection antibodies

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Tetanus toxin, a member of the peptidase M27 family of proteins, is produced by the anaerobic spore-forming bacteria Clostridium tetani as a single-chain polypeptide that is 1315 amino acids (aa) in length. The protein is subsequently cleaved by an endogenous protease to yield the 52 kDa tetanus toxin light chain (TeNT-LC), which is 457 aa in length, and the 98 kDa tetanus toxin heavy chain that is 858 aa long. The light and heavy chains are linked by a disulfide bridge and are non-toxic after separation. Tetanus toxin acts by inhibiting neurotransmitter release. It binds to peripheral neural synapses, is internalized and moves by retrograde transport up the axon into the spinal cord where it can move between postsynaptic and presynaptic neurons. It inhibits neurotransmitter release by acting as a zinc endopeptidase that catalyzes the hydrolysis of the '76-Gln-|-Phe-77' bond of synaptobrevin-2.