

Anti- Tetanus Toxin antibody, mouse monoclonal (TH-11)

64-035 100 µg

Shipping and Storage: Shipped at 4°C or -20°C. Store at -20°C.

Immunogen: Tetanus toxoid (Clostridium tetani Harvard vaccine strain)

Form: 1 mg/ml in PBS- with 50% glycerol. Azide and carrier-free

Purity: Mouse monoclonal anti-Tetanus Toxin antibody (clone TH-11). Produced by hybridoma cultured in serum-free medium and purified by propriety chromatography under mild conditions.

Isotype: Mouse IgG1 κ

Reactivity: Reacts with Light Chain of tetanus toxin.

Background: Tetanus toxin acts by inhibiting neurotransmitter release. It binds to peripheral neuronal 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.

Molecular processing: The toxin encoded 1,315 amino acids with mass of 150,682 Da which is proteolytically processed into Light Chain (2-457) and Heavy Chain (458-1315) upon secretion. These remain linked by a disulfide bridge and are non-toxic after separation.

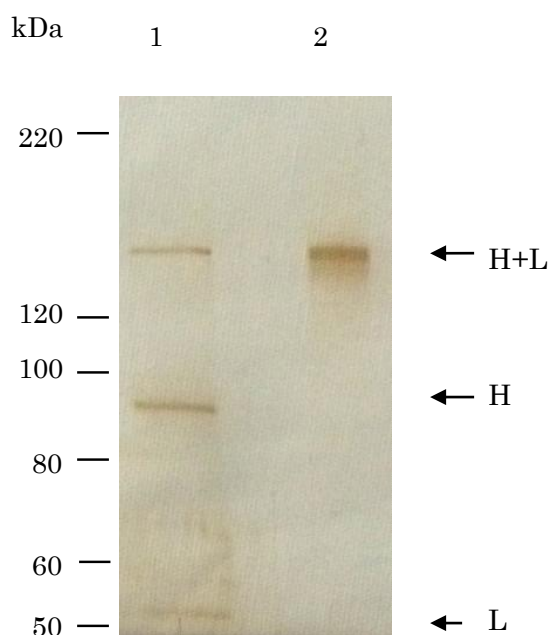
Applications:

1. Western blotting (1/1,000 dilution)
2. ELISA (assay dependent)
3. Neutralising of the toxin activity (assay dependent)

Other applications have not been tested.

Data Link: UniProtKB [P04958](http://www.uniprot.org/entry/P04958) Tetanus toxin

SDS-PAGE & Silver Staining



Western Blotting

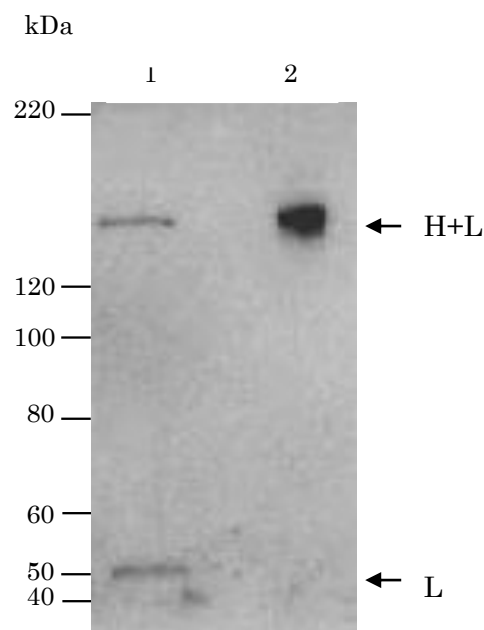


Figure. Western Blot analysis of Tetanus Toxin with anti-Tetanus Toxin antibody (TH11)

Left Panel is SDS-PAGE analysis of partially purified tetanus toxin, silver stained, and Right panel is western blot analysis of the same samples.

Lane 1 sample was reduced and Lane 2 sample was unreduced.

Tetanus toxin Heavy and Light chains are so tightly attached and they are difficult to separate completely by heating in SDS in the presence of mercaptoethanol. In the above reduced samples, part of the reduced sample remained attached as shown by “H+L” in lane 1 of Left panel . To dissociate the two attached fragments completely, addition of 2M urea is required. The antibody (TH11) recognizes Light chain of the toxin. The anti-tetanus toxin antibody was used at 1/1,000 dilution.

For Research Use only, not to be used in Human.