

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

64-035 100 µl

Function: 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 encodes 1,315 amino acids with a 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. Neutralizing of the toxin activity (assay dependent)
- Other applications have not been tested.

Specification

Immunogen: Tetanus toxoid (Clostridium tetani Harvard vaccine strain)

Reactivity: Reacts with Light Chain of tetanus toxin

Subtype: Mouse IgG1 kappa

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

Storage: Shipped at 4°C or -20°C. Upon arrival, spin down and store at -20°C.

Data Link: UniProt/P04958 Tetanus toxin

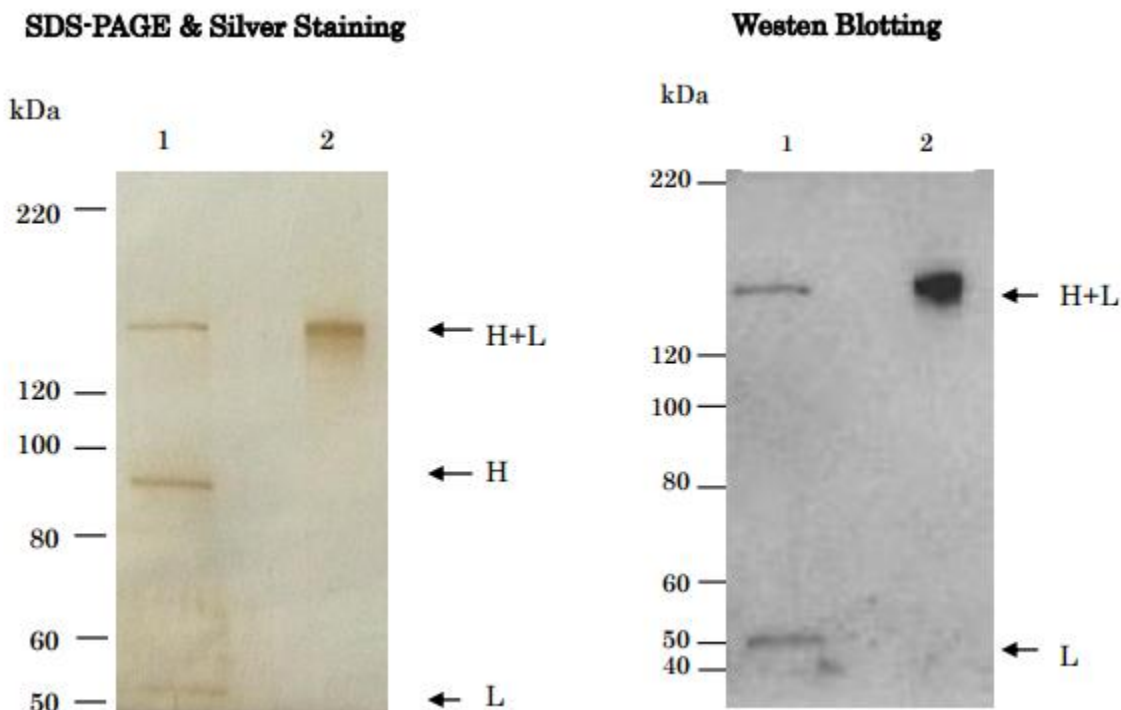


Figure. Western Blot analysis of Tetanus Toxin with anti-Tetanus Toxin antibody (TH11)

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 not reduced. Tetanus toxin Heavy and Light chains are tightly attached difficult to separate completely by heating in SDS in the presence of mercaptoethanol. Part of the reduced sample remained attached as shown by the "H+L" arrow 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.