



Anti-C. tetani Toxin Polyclonal antibody (DPAB2076)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Rabbit polyclonal to bacteria tetanus toxin.
Antigen Description	Clostridium tetanus is a gram-positive, motile bacteria found in soil and animal faeces. C. tetanus produces the potent exotoxin which causes tetanus (lockjaw) in humans. Tetanus toxin (TeNT) acts by inhibiting neurotransmitter release leading to chronic muscle contraction, which can eventually cause respiratory failure. It binds to peripheral neuronal synapses where it is internalized and moved by retrograde transport up through 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. Tetanus toxin is synthesized as a single 150kDa polypeptide chain which is cleaved by a host protease to produce a heterodimeric protein, with a disulphide bond between the N-terminal 50kDa light (L) chain and the 100kDa C-terminal heavy (H) chain responsible for the spastic paralysis. The chains are non-toxic after separation.
Specificity	This antibody reacts with both tetanus toxin and tetanus toxoid.
Target	C. tetani Toxin
Immunogen	Tetanus toxoid (formaldehyde inactivated tetanus toxin)
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	C. tetani
Conjugate	Unconjugated
Applications	ELISA, WB

Preparation	Sterile filtered, 0.22 µm pore size
Concentration	~10 mg/ml
Preservative	None
Storage	2-8°C.

BACKGROUND

Introduction	<p>Tetanus toxin is an extremely potent neurotoxin produced by the vegetative cell of <i>Clostridium tetani</i> in anaerobic conditions, causing tetanus. It has no known function for clostridia in the soil environment where they are normally encountered. It is also called spasmogenic toxin, tetanospasmin or abbreviated to TeTx or TeNT. The LD50 of this toxin has been measured to be approximately 1ng/kg, making it second only to Botulinin toxin D as the deadliest toxin in the world. However, these tests are conducted solely on mice which may react differently to certain toxins than humans and other animals. <i>C. tetani</i> also produces the exotoxin tetanolysin, a hemolysin, that causes destruction of tissues.</p>
Keywords	<p>Tetanus Toxin; Tentoxylisin; Tetanus toxin chain H; Tetanus toxin chain L; Tetanus toxin heavy chain; Tetanus toxin light chain</p>