

**CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET**

<b>Product name</b>	Shigatoxin 1, clone 13C4		
<b>Catalog number</b>	HM6007-20UG		
<b>Lot number</b>	-	<b>Expiry date</b>	-
<b>Volume</b>	200 µl	<b>Amount</b>	20 µg
<b>Formulation</b>	0.2 µm filtered in PBS+0.1%BSA	<b>Concentration</b>	100 µg/ml
<b>Host Species</b>	Mouse IgG1	<b>Conjugate</b>	None
<b>Endotoxin</b>	<24 EU/mg	<b>Purification</b>	Protein G
<b>Storage</b>	4°C		

**Application notes**

	IHC-F	IHC-P	IF	FC	FS*	IA	IP	W
Reference #								
Yes					•	•		•
No								
N.D.	•	•	•	•			•	

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:10.

- FS: The monoclonal antibody 13C4 is useful for the inhibition of biological activity of the toxin. For inhibition of biological activity in vitro dilutions have to be made according to the amounts of toxin to be inactivated.
- IA: The monoclonal antibody 13C4 can be used as detector.

**General Information**

**Description** The monoclonal antibody 13C4 recognizes the 1B subunit of Shiga-like toxin 1. Shiga-like toxins (SLTs), are also called Verotoxins. Enterohemorrhagic Escherichia coli (EHEC) strains which are primarily of serotypes O157:H7, O26:H11 and O111:H8 have been incriminated as etiologic agents of hemorrhagic colitis and Hemolytic-uremic syndrome, a generalized disease characterized by acute renal failure, thrombocytopenia, and microangiopathic hemolytic anemia. There are several distinct E.coli SLTs. SLT-I and SLT-II are produced by EHEC. SLT-I and Shiga toxin share >99% deduced amino acid sequence homology, whereas SLT-I and SLT-II share about 60% deduced amino acid sequence homology. SLT-I and SLT-II are antigenically distinct. The protein structure of the toxin consists of two domains: the A polypeptide that inhibits protein synthesis by targeting ribosomes, and the B polypeptide pentamer that binds to the eukaryotic cell receptor globotriaosylceramide (Gb3) leading to receptor-mediated endocytosis.

**Aliases** Verotoxin 1

- References**
1. Strockbine, N et al; Characterization of monoclonal antibodies against Shiga-like toxin from Escherichia coli. Infect Immun 1985, 50: 695
  2. Smith, M et al; Development of a hybrid Shiga holotoxoid vaccine to elicit heterologous protection against Shiga toxins types 1 and 2. Vaccine 2006, 24: 4122
  3. Smith, M et al; The 13C3 monoclonal antibody that neutralizes Shiga toxin type 1 (Stx1) recognizes three regions on the Stx1 subunit and prevents Stx1 from binding to its eukaryotic receptor globotriaosylceramide. Infect Immun 2006, 74: 6992

**Storage&stability** Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

**Precautions**

For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

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We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC  
Brenda Teunissen

Date  
13/01/2021

Do you have any questions or comments regarding this product? Please contact us via [support@hycultbiotech.com](mailto:support@hycultbiotech.com).