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Datasheet for 200-401-MX5

T7 RNA Polymerase Antibody

Overview

Description:	Anti-T7 RNA Polymerase (RABBIT) Antibody - 200-401-MX5
Item No.:	200-401-MX5
Size:	50 µg
Applications:	ELISA, WB
Reactivity:	Virus
Host Species:	Rabbit

Product Details

Background:	T7 RNA Polymerase is a highly processive DNA-dependent RNA polymerase that catalyzes the transcription of class II and class III viral genes. It recognizes a specific promoter sequence and enters first into an 'abortive phase' where very short transcripts are synthesized and released before proceeding to the processive transcription of long RNA chains. T7 RNA Polymerase unwinds the double-stranded DNA to expose the coding strand for templating. It participates in the initiation of viral DNA replication presumably by making primers accessible to the DNA polymerase, thus facilitating the DNA opening. Also, T7 RNA Polymerase plays a role in viral DNA packaging, probably by pausing the transcription at the right end of concatemer junction to allow packaging complex recruitment and beginning of the packaging process. In eukaryotes three forms of this enzyme have been distinguished on the basis of sensitivity of alpha-amanitin, and the type of RNA synthesized.
Synonyms:	Escherichia phage T7 (Bacteriophage T7), DNA-directed RNA polymerase, DNA-dependent RNA polymerase, RNA nucleotidyltransferase (DNA-directed)
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	T7p07
Reactivity:	Virus

Immunogen Type:	Recombinant Protein
Immunogen:	Anti-T7 Polymerase antibody was produced from whole rabbit serum produced by repeated immunizations with T7 Polymerase isolated from E. coli.
Purity/Specificity:	Protein A purified T7 RNA Polymerase antibody is directed against T7 Polymerase (E. coli). The product was purified from monospecific antiserum by protein A chromatography.
Relevant Links:	• UniProtKB - P00573 • NCBI - NP_041960.1 • GeneID - 1261050

Application Details

Tested Applications:	ELISA, WB
Application Note:	This protein A purified Anti-T7 RNA Polymerase antibody has been tested for use in ELISA and Western Blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 98.9 kDa in size corresponding to T7 Polymerase by western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:11,000-1:13,000
WB:	1.0 µg/mL

Formulation

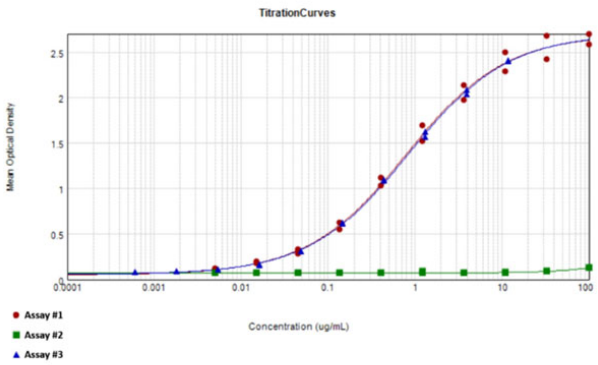
Physical State:	Liquid (sterile filtered)
Concentration:	1.19 by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

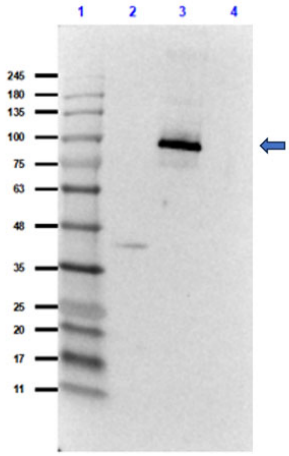
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



ELISA
ELISA results of Rabbit Anti-T7 RNA Polymerase Antibody. Each well was coated in duplicate with 10 µg of T7 RNA Polymerase (Red and Blue), BSA (Green). The starting dilution of antibody was 1:100 and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using Rabbit Anti-T7 RNA Polymerase (p/n 200-401-MX5) [Blue] and T7 RNA Polymerase bleed [Red and Green], Goat anti-Rabbit HRP (p/n 611-1302) 1:10,000, 1% Fish gel (p/n MB-066-0100), and TMB substrate (p/n TMBE-1000).



Western Blot
Western Blot Results of Rabbit Anti-T7 RNA Polymerase Antibody.
Lane 1: Opal Prestained Molecular Weight Marker (p/n MB210-0500) [10µL].
Lane 2: T4 RNA Ligase [0.5µg].
Lane 3: T7 RNA Polymerase [0.5µg].
Lane 4: Bovine Albumin (BSA) (p/n 001-0133) [0.5µg].
Primary Antibody: Rabbit Anti-T7 RNA Polymerase Antibody at 1.0 µg/mL overnight at 2-8°C.
Secondary Antibody: Goat Anti-Rabbit IgG Peroxidase Conjugated (p/n 611-1302) at 1:40,000 at RT for 30 mins.
Block: BlockOut® Universal Blocking Buffer (p/n MB-073) at RT for 1hr.
Expected MW: ~98.9kDa for T7 RNA Polymerase in lane 3.

Disclaimer

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