



Mouse Anti-double-stranded RNA monoclonal antibody, clone K1 (CPBT-LL018)

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

PRODUCT INFORMATION

Specificity The mAb K1 recognises double-stranded RNA (dsRNA) provided that the length of the helix is greater than or equal to 40 bp. dsRNA recognition is independent of the sequence and nucleotide composition of the antigen. All naturally occurring dsRNAs investigated up to now (40-50 species) as well as poly(I).poly(C) and poly(A).poly(U) have been recognised by K1. As described by Schönborn et al. K1 shows higher affinity to poly(I).poly(C) than to the other dsRNA antigens, although the difference of apparent binding constants may vary under different experimental conditions.

Target	dsRNA
Immunogen	Mixture of 50 ug L-dsRNA and 75 ug methylated bovine serum albumin.
Isotype	IgG2a
Source/Host	Mouse
Species Reactivity	N/A
Clone	K1
Purification	Affinity chromatography on Protein A-agarose. Gel electrophoretically pure IgG antibody.
Conjugate	Unconjugated
Applications	Dot, ELISA, ICC, IHC The optimum working dilution of each antibody for any specific application should be established by titration.
Reconstitution	The lyophilised samples should each be reconstituted with 100 µl sterile distilled water.
Format	Lyophilised

Concentration	Concentration after reconstitution: 1.00 mg/ml as determined by A280 nm (A280 nm = 1.47 corresponds to 1 mg/ml antibody).
Size	100 µg, 500 µg
Buffer	After reconstituted with 100 µl sterile distilled water, the mAb will then be in PBS without any stabilisers or preservatives at a concentration of 1 mg/ml.
Preservative	None
Storage	After reconstitution antibodies should be aliquoted and stored at -20 °C or -70°C. After adding 10 mM sodium azide undiluted antibody can also be stored at +4 °C for a short period of time. For long term storage the mAb should be kept frozen. Repeated freezing/thawing cycles should be avoided. When kept lyophilized the product will remain stable for at least 5 years at -20 °C or -70°C.
Ship	Wet ice

BACKGROUND

Introduction

Over the past decade our double-stranded RNA (dsRNA)antibody has been used extensively to detect and characterise plant and animal viruses with dsRNA genomes or intermediates. In addition, the anti-dsRNA antibody can be used as a diagnostic tool to detect pathogens, including detection in paraffin-embedded fixed tissue samples. The K1 monoclonal antibody recognises dsRNA. It can be used for the histological and cytological detection of dsRNA in cells and tissues. It has proven especially useful to resolve cross-reactions and/or remove unwanted background, in those rare experimental setups. K1 can be used to detect dsRNA intermediates of viruses as diverse as Hepatitis virus, Theiler's murine encephalomyelitis virus or Japanese encephalitis virus. It has been for the detection of dsRNA in cultured cells and in fixed paraffin-embedded histological samples. If Poly I:C needs to be detected, K1 has a much higher affinity for this synthetic polyribonucleotide. K1 has been used successfully in immunofluorescence microscopy, in flow cytometry (FACS) and in immunocapture methods (such as dot-blot and ELISA).