

Monoclonal Antibody K1

Description	K1 monoclonal antibody (mAB), mouse, IgG2a, kappa chain
Concentration	1 mg/ml as determined by Bradford gel electrophoretically pure IgG antibody
Reconstitution	The lyophilised sample should be reconstituted with 500 µl sterile distilled water. The mAB will then be in PBS without any stabilisers or preservatives.
Specificity	The mAB K1 recognises double-stranded RNA (dsRNA) provided that the length of the helix is ≥ 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 Schoenborn et al. K1 shows higher affinity to poly(I)·poly(C) than to the other dsRNS antigens, although the difference of apparent binding constants may vary under different experimental conditions.
Applications	mAB K1 can be used for ELISA, dsRNA-immunoblotting, immunoaffinity chromatography and in certain systems also for immunohistochemistry (see references). Please note that nucleic acid separation prior to dsRNA-immunoblotting must be carried out by polyacrylamide gel electrophoresis, because the sensitivity of detection is considerably lower after blotting from agarose gels. Not for use for clinical purposes. For <i>in vitro</i> use only.
Stability and 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.
References	Schönborn, J., Oberstrass, J., Breyel, E., Tittgen, J., Schumacher, J. and Lukacs, N. (1991) Monoclonal antibodies to double-stranded RNA as probes of RNA structure in crude nucleic acid extracts. <i>Nucleic Acids Res.</i> 19, 2993-3000. Lukacs, N. (1994) Detection of virus infection in plants and differentiation between coexisting viruses by monoclonal antibodies to double-stranded RNA. <i>J. Virol. Methods</i> 47, 255-272. Lukacs, N. (1997) Detection of sense:antisense duplexes by structure-specific anti-RNA antibodies. In: <i>Antisense Technology. A Practical Approach</i> , C. Lichtenstein and W. Nellen (eds), pp. 281-295. IRL Press, Oxford.