Monoclonal Antibody K1

Description K1 monoclonal antibody (mAb), mouse, IgG2a, kappa chain

Lot. Nr. **K1-1502** **Amount:** 200 µg
Lot. Nr. **K1-1502** **Amount:** 500 µg

Concentration after reconstitution **1.00** mg/ml as determined by $A_{280\ nm}$ (A280 nm = 1.47 corresponds to 1 mg/ml antibody) gel electrophoretically pure IgG antibody.

Reconstitution The lyophilised sample should be reconstituted with:

200 µl sterile distilled water for 200µg

500 µl sterile distilled water for 500µg.

The mAb will then be in PBS without any stabilisers or preservatives. As a result of the lyophilisation procedure, the reconstituted antibody may contain small amounts of denatured protein in the form of aggregates that may interfere with some applications such as immunohistochemistry (e.g. by giving high backgrounds). We therefore highly recommend centrifuging (microcentrifuge) the reconstituted antibody before use and using the supernatant.

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.

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 *in vitro* 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. Nucleic Acids Res.19, 2993-3000.

Lukacs, N. (1994) Detection of virus infection in plants and differentiation between coexisting viruses by monoclonal antibodies to double-stranded RNA. J. Virol. Methods 47, 255-272.

Lukacs, N. (1997) Detection of sense:antisense duplexes by structure-specific anti-RNA antibodies. In: Antisense Technology. A Practical Approach, C. Lichtenstein and W. Nellen (eds), pp. 281-295. IRL Press, Oxford.

When referring to this antibody in a publication, please cite „K1“ from “English and Scientific Consulting, Hungary”. You may also include our weblink (http://www.scicons.eu).