



Anti-dsRNA monoclonal antibody K1

mouse, IgG2a, kappa chain

Cat. No.	Amount
RNT-SCI-10020200	200 µg
RNT-SCI-10020500	500 µg



For general laboratory use.

Shipping: shipped on gel packs

Storage Conditions: store at -20 °C to -80 °C upon reconstitution for long-term storage

Additional Storage Conditions: avoid freeze/thaw cycles, store in aliquot.

After adding 10 mM sodium azide the undiluted antibody (1 µg/µl) can be stored at 4°C for a short period of time

Shelf Life: 12 months after date of delivery

Form: lyophilised from a 1 mg/ml solution in PBS

Solubility: To prepare a 1 µg/µl PBS antibody solution add 200 µl (RNT-SCI-10020200) or 500 µl (RNT-SCI-10020500) sterile DNase/RNase-free distilled water. 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 to spin down (microcentrifuge) the reconstituted antibody before use and to use the supernatant only.

Description:

Anti-dsRNA monoclonal antibody K1 can be used for the detection of dsRNA both in cultured cells and fixed paraffin-embedded histological samples. It is recommended for Poly I:C detection (higher affinity than J2) and Anti-dsRNA monoclonal antibody J2 alternative to resolve cross-reactions and/or remove background in those rare experimental setups where J2 does not provides satisfactory results.

Applications:

ELISA, IF, FACS, IHC, IP, Dot Blot, CHIP, affinity purification, immunoelectron microscopy.

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.

Specificity:

Anti-dsRNA monoclonal antibody 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 Anti-dsRNA monoclonal antibody K1. As described by Schönborn et al. (1991), Anti-dsRNA monoclonal antibody 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.

Species Origin: Mouse

Heavy Chain Isotype: IgG2a

Light Chain Isotype: kappa

Quality control:

Purity/Identity: Reducing and Non-reducing SDS-PAGE

Activity: AN-ELISA (relative activity compared to reference K1)

Related Products:

PCR-grade water, #PCR-258

Selected References:

Schönborn *et al.* (1991) Monoclonal antibodies to double-stranded RNA as probes of RNA structure in crude nucleic acid extracts. *Nucleic Acids Res.* **19**: 2993.

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

Lukacs (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