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Product datasheet for TA398712

Mouse Monoclonal Antibody [Clone ID: J2, J5 and K1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	J2, J5 and K1
Applications:	Dot, ELISA, ICC, IHC, Immuno-affinity-chromatography
Host:	Mouse
Clonality:	Monoclonal
Formulation:	The lyophilised samples should each be reconstituted with 100 µl sterile distilled water. The mAb will then be in PBS without any stabilisers or preservatives at a concentration of 1 mgr/ml. 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.
Concentration:	Concentration after reconstitution: 1.00 mg/ml as determined by A280 nm (A280 nm = 1.47 corresponds to 1 mg/ml antibody).
Purification:	Affinity chromatography on Protein A-agarose.
Conjugation:	Unconjugated
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 10 years at -20 °C or -70°C.
Stability:	Shelf life: one year from despatch.

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Background: Over the past decade our double-stranded RNA (dsRNA)antibodies have been used extensively to detect and characterise plant and animal viruses with dsRNA genomes or intermediates. In addition, the anti-dsRNA antibodies can be used as a diagnostic tool to detect pathogens, including detection in paraffin-embedded fixed tissue samples (Richardson et al. 2010). The K1 monoclonal antibody recognises dsRNA with similar affinity to our widely used J2 antibody. It can be used for the histological and cytological detection of dsRNA in cells and tissues. It has proven especially useful as an alternative to J2 to resolve cross-reactions and/or remove unwanted background, in those rare experimental setups where J2 did not provide satisfactory results. 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 (see publications). If Poly I:C needs to be detected we highly using K1 rather than J2 because K1 has a much higher affinity for this synthetic polyribonucleotide (see Schönborn et al. 1991, Fig. 2). K1 has been used successfully in immunofluorescence microscopy, in flow cytometry (FACS) and in immunocapture methods (such as dot-blot and ELISA). The J5 IgG2b antibody recognizes dsRNA with very similar affinity and specificity to our J2 antibody (see Schonborn et al., 1991), but has a different isotype – thus allowing more flexibility for the simultaneous detection of dsRNA with other markers, particularly in immunofluorescence microscopy, and has been used to detect replicative intermediates of the fish virus Infectious Pancreatic Necrosis Virus (IPNV) (Levican-Asenjo et al., 2019) or of ECMV in Vero cells. The J5 antibody can detect all tested forms of dsRNA, including poly(A):poly(U), poly(I):poly(C) and dsRNA from viruses such as Dengue Virus, Encephalomyocarditis Virus, Vaccinia Virus, Reovirus or Cucumber Mosaic Virus. Similarly to our other antibodies dsRNA-binding of J5 is sequence-independent, as long as the length of the dsRNA exceeds 40nt. The antibody does not react with ssRNA, ssDNA or dsDNA. J5 has been tested successfully in nucleic acid ELISA, immunoblotting and immunofluorescence microscopy.

Synonyms: Anti-dsRNA mAb Comparison Set

Note: Gel electrophoretically pure IgG antibody.