

PRODUCT INFORMATION SHEET

Mouse Monoclonal Antibody to CDKN2A

Format: PURE RUO REF IQP-1801P Volume: 0.1ml

Description

Clone 1D7D2

Isotype Mouse IgG1
Specificity CDKN2A

Alternative ARF; MLM; P14; P16; P19; CMM2; INK4; MTS1; TP16; CDK4I; CDKN2; INK4A; MTS-1; P14ARF;

names P19ARF; P16INK4; P16INK4A; P16-INK4A

Species Human

Immunogen Purified recombinant fragment of human CDKN2A (AA: 1-156) expressed in E. Coli.

Mw 16.5kDa

Format Ascitic fluid containing 0.03% sodium azide.

Summary

This gene generates several transcript variants which differ in their first exons. At least three alternatively spliced variants encoding distinct proteins have been reported, two of which encode structurally related isoforms known to function as inhibitors of CDK4 kinase. The remaining transcript includes an alternate first exon located 20 Kb upstream of the remainder of the gene; this transcript contains an alternate open reading frame (ARF) that specifies a protein which is structurally unrelated to the products of the other variants. This ARF product functions as a stabilizer of the tumor suppressor protein p53 as it can interact with, and sequester, MDM1, a protein responsible for the degradation of p53. In spite of the structural and functional differences, the CDK inhibitor isoforms and the ARF product encoded by this gene, through the regulatory roles of CDK4 and p53 in cell cycle G1 progression, share a common functionality in cell cycle G1 control. This gene is frequently mutated or deleted in a wide variety of tumors, and is known to be an important tumor suppressor gene.

Applications ELISA: 1/10000; WB: 1/500 - 1/2000; IHC: 1/200 - 1/1000; FCM: 1/200 - 1/400

Limitations

- 1. Conjugates with brighter fluorochromes, like PE and APC, will have a greater separation than those with dyes like FITC and CyQ. When populations overlap, the percentage of positive cells using a selected marker can be affected by the choice of fluorescent label.
- 2. Use of monoclonal antibodies in patient treatment can interfere with antigen target recognition by this reagent. This should be taken into account when samples are analyzed from patients treated in this fashion. IQ Products has not characterized the effect of the presence of therapeutic antibodies on the performance of this reagent.
- 3. Reagents can be used in different combinations, therefore laboratories need to become familiar performance characteristics of each antibody in relation with the combined markers in normal and abnormal samples.
- 4. Reagent data performance is based on EDTA-treated blood. Reagent performance can be affected by the use of other anticoagulants.

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Handling and Storage

Store the vials at 2-8°C for a maximum of 2 weeks and store at -20°C for longer term storage. Monoclonal antibodies should be protected from prolonged exposure to light when conjugated with fluorochromes. Reagents are stable for the period shown on the vial label when stored properly.

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Warranty

Products sold hereunder are warranted only to conform to the quantity and contents stated on the label at the time of delivery to the customer. There are no warranties, expressed or implied, which extend beyond the description on the label of the product. IQ Products is not liable for property damage, personal injury, or economic loss caused by the product.

Characterization

To ensure consistently high-quality reagents, each batch of monoclonal antibody is tested for conformance with characteristics of a standard reagent.

Warning

All products contain sodium azide. This chemical is poisonous and hazardous. Handling should be done by trained staff only.

References

1.Clin Cancer Res. 2011 Dec 1;17(23):7413-23.

2.Appl Immunohistochem Mol Morphol. 2011 Dec;19(6):562-8.

Explanation of used symbols



		Label - tandem	Ex -max (nm)	Em -max (nm)
Р	PURE	purified material	-	-
F	FITC	FITC	488	519
R	R-PE	PE PI	488, 532	578
С	CyQ	PE-Cy5.18	488, 532	667
Α	APC		595, 633, 635, 647	660
PC	PerCP		488, 532	678
PCC	PerCP-Cy5.5		488, 532	695



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