Datasheet: HCA053A

Description:	HUMAN ANTI Ki67
Specificity:	Ki67
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	2531
Isotype:	HuCAL/mouse IgG1 Fc
Quantity:	50 µg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Frozen	▪			
Immunohistology - Paraffin (1)	▪			1/100 - 1/500
ELISA	▪			2ug/ml
Western Blotting	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

(1)**This product requires antigen retrieval using heat treatment prior to staining of paraffin sections.Sodium citrate buffer pH 6.0 is recommended for this purpose.**

Target Species

Human

Species Cross Reactivity

Based on sequence similarity, is expected to react with:Bovine, Macaque, Dog, Chimpanzee, Rhesus Monkey

N.B. Antibody reactivity and working conditions may vary between species.

Product Form

Chimeric human-mouse IgG1 antibody selected from the HuCAL® phage display library and expressed in a human cell line. The antibody has variable regions of human origin and an Fc portion (including CH1 and CL domains) from mouse IgG1. It can be detected by anti mouse Fc specific secondary antibodies. This antibody is supplied lyophilised.

Reconstitution

Reconstitute with 0.5ml distilled water

Preparation

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide (NaN_3)
1% Bovine Serum Albumin

Approx. Protein Concentrations	IgG concentration 0.1mg/ml
Immunogen	Peptide derived from the human Ki-67 protein. Sequence GFKELFQTPG, coupled via a C-terminal cysteine to carrier proteins.
External Database Links	**UniProt:** P46013 Related reagents **Entrez Gene:** 4288 MKI67 Related reagents
Specificity	**Human anti Ki-67 antibody, clone 2531** recognizes the Ki-67 cell-cycle assocaited protein. Ki-67 is expressed in proliferating cells but not in quiescent cells. Expression of this antigen occurs preferentially during late G1, S, G2, and M phases of the cell cycle, while in cells in G0 phase the antigen cannot be detected. Consequently, Ki-67 antigen expression is used in tumor pathology to detect proliferating cells in neoplastic diseases. In cultured cells, Ki-67 is expressed in the nucleolus of interphase cells. The Ki-67 gene contains 15 exons. The Ki-67 repeat region, within which there is a 22-amino acid Ki-67 motif, is encoded by exon 13. The shorter isoform lacks exon 7. Northern blot analysis reveals multiple transcripts ranging from approximately 8.9 to 12.5 kb in proliferating but not quiescent cells. Immunoblot analysis shows expression of 320 and 359 kDa proteins. Antisense oligonucleotides inhibit cellular proliferation in a dose-dependent manner, suggesting that Ki-67 protein expression may be an absolute requirement for cell proliferation. Within cells Ki67 is predominantly localized in the G1 phase in the perinucleolar region, in the later phases it is also detected throughout the nuclear interior, being predominantly localized in the nuclear matrix. In mitosis, it is present on all chromosomes.
ELISA	Due to the presence of bovine serum albumin (BSA), this antibody is unsuitable for use as a capture reagent in sandwich ELISA applications. This product is also available without BSA, please enquire.
Histology Positive Control Tissue	Human tonsil
References	1. Jarutat, T. *et al.* (2006) Isolation and comparative characterization of Ki-67 equivalent antibodies from the HuCAL phage display library. Biol. Chem. 387: 995-1003. 2. Liu, S.K. *et al.* (2011) Delta-like ligand 4-notch blockade and tumor radiation response. J Natl Cancer Inst. 103 (23): 1778-98.
Storage	Prior to reconstitution store at +4^{o}C. After reconstitution store at +4^{o}C or at -20^{o}C if preferred. Storage in frost-free freezers is not recommended.
Shelf Life	12 months from date of reconstitution.
Acknowledgements	Sold under license of U.S. Patents 6753136, 7785859 and 8273688 and corresponding patents. This antibody was developed by Bio-Rad, Zeppelinstr. 4, 82178 Puchheim, Germany.
Health And Safety	Material Safety Datasheet Documentation #10041 available at:

Information	https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
Licensed Use	For *in vitro* research purposes only, unless otherwise specified in writing by Bio-Rad.
Regulatory	For research purposes only
Technical Advice	Recommended protocols and further information about HuCAL recombinant antibody technology can be found in the HuCAL Antibodies Technical Manual

Related Products

Recommended Secondary Antibodies

Goat Anti Human IgG F(ab')2 (0500-0099...) HRP

North & South America
Tel: +1 800 265 7376
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