

Datasheet: VMA00977

Description:	MOUSE ANTI POLD1
Specificity:	POLD1
Format:	Purified
Product Type:	PrecisionAb Monoclonal
Clone:	CD02/4G2
Isotype:	IgG2b
Quantity:	100 µl

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
Immunoprecipitation	▪			
Western Blotting	▪			1/1000

The PrecisionAb label is reserved for antibodies that meet the defined performance criteria within Bio-Rad's ongoing antibody validation programme. Click [here](#) to learn how we validate our PrecisionAb range. Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Further optimization may be required dependent on sample type.

Target Species	Human
Product Form	Purified IgG - Liquid
Preparation	Mouse monoclonal antibody affinity purified on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	<i>E. coli</i> -derived recombinant protein of amino acids 1-140 of human POLD1

**External Database
Links**

UniProt:

[P28340](#) [Related reagents](#)

Entrez Gene:

[5424](#) POLD1 [Related reagents](#)

Synonyms

POLD

Fusion Partners

Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line

Specificity

Mouse anti POLD1 antibody recognizes DNA polymerase delta catalytic subunit, also known as POLD. POLD is the catalytic subunit of the DNA polymerase delta complex, one of the two major polymerases in eukaryotes which function in DNA replication ([Bullock et al. 2020](#)). Accordingly, POLD1 is important for appropriate DNA replication and repair and maintenance of genome integrity. POLD1 is expressed differently throughout the cell cycle, with highest expression during late G1/S when DNA is replicated prior to mitosis ([Nicolas et al. 2016](#)). POLD1 expression declines with age, which appears to cause senescence by reducing DNA synthesis and repair of DNA damage ([Gao et al. 2019](#)). Abnormal POLD1 expression has been identified in many cancer types, and may play important roles in tumor development ([Qin et al. 2018](#)). High frequencies of POLD1 mutations have been identified in patients with endometrial cancer, skin cancer, colorectal cancer, esophagogastric cancer, bladder cancer, lung cancer and other cancer types ([Wang et al. 2019](#)).

Western Blotting

Mouse anti POLD1 detects a band of approximately 133 kDa in MOLT-4 cell lysates

Storage

Store undiluted at -20°C, avoiding repeated freeze thaw cycles

Guarantee

12 months from date of despatch

Acknowledgements

PrecisionAb is a trademark of Bio-Rad Laboratories

**Health And Safety
Information**

Material Safety Datasheet documentation #10040 available at:
<https://www.bio-rad-antibodies.com/SDS/VMA00977>
Antibody (10040)

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (H/L) (STAR207...) [HRP](#)

Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL \(MCA691\)](#)

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To find a

batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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