

# Datasheet: VMA00185KT

Description:	PTPN1 ANTIBODY WITH CONTROL LYSATE
Specificity:	PTPN1
Format:	Purified
Product Type:	PrecisionAb™ Monoclonal
Clone:	OTI1B4
Isotype:	lgG2a
Quantity:	2 Westerns

# **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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Western Blotting				1/1000

**PrecisionAb antibodies have been extensively <u>validated for the western blot application</u>. The antibody has been validated at the suggested dilution. 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 dependant on sample type.** 

Target Species	Human		
Product Form	Purified IgG - liquid		
Preparation	20µl Mouse monoclonal antibody purified by affinity chromatography from ascites.		
Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin 50% Glycerol		
Immunogen	Full length recombinant human PTPN1 (NP_002818) produced in HEK293T cells		
External Database Links	UniProt:  P18031 Related reagents  Entrez Gene:  5770 PTPN1 Related reagents		
Synonyms	PTP1B		

#### Specificity

Mouse anti Human PTPN1 antibody recognizes PTPN1, also known as protein tyrosine phosphatase, placental, protein-tyrosine phosphatase 1B and tyrosine-protein phosphatase non-receptor type 1.

The protein encoded by the PTPN1 gene is the founding member of the protein tyrosine phosphatase (PTP) family, which was isolated and identified based on its enzymatic activity and amino acid sequence. PTPs catalyze the hydrolysis of the phosphate monoesters specifically on tyrosine residues. Members of the PTP family share a highly conserved catalytic motif, which is essential for the catalytic activity. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP has been shown to act as a negative regulator of insulin signaling by dephosphorylating the phosphotryosine residues of insulin receptor kinase. This PTP was also reported to dephosphorylate epidermal growth factor receptor kinase, as well as JAK2 and TYK2 kinases, which implicated the role of this PTP in cell growth control, and cell response to interferon stimulation. Two transcript variants encoding different isoforms have been found for PTPN1 (provided by RefSeq, Jul 2013).

Mouse anti Human PTPN1 antibody detects a band of 50 kDa. The antibody has been extensively validated for western blotting using whole cell lysates.

Western	Blotting

Anti PTPN1 detects a band of approximately 50 kDa in K562 cell lysates.

#### **Instructions For Use**

Please refer to the PrecisionAb western blotting protocol. For additional information on secondary antibody dilution and exposure time see product web page.

#### **Lysate Composition**

400µg K562 lysate lyophilized in RIPA buffer.

- Lysate Reconstitution If using DDT reconstitute the lyophilized lysate with 190µl DI H<sub>2</sub>O, add 200µl 2x Laemmli Sample Buffer and 10µl 2M DTT.
  - If using BME reconstitute the lyophilized lysate with 180µl DI H<sub>2</sub>O, add 200µl 2x Laemmli Sample Buffer and 20µl BME.

Heat at 95°C for 5 minutes. For 10 well mini gels load 25µl. For other gel and comb formats please refer to the PrecisionAb western blotting protocol.

#### **Storage**

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

Lysate: Store lyophilized lysate at -20°C. After reconstitution aliquot and store at -20°C for up to 3 months or at -80°C for longer term storage.

#### Guarantee

As supplied, 12 months from date of despatch.

#### **Acknowledgements**

PrecisionAb™ is a trademark of Bio-Rad Laboratories.

# **Health And Safety** Information

Material Safety Datasheet documentation #10048 #10561 available at:

Antibody (10048): https://www.bio-rad-antibodies.com/uploads/MSDS/10048.pdf Lysate Material (10561): https://www.bio-rad-antibodies.com/uploads/MSDS/10561.pdf

#### Regulatory

For research purposes only

## Related Products

## **Recommended Secondary Antibodies**

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

# **Recommended Negative Controls**

# MOUSE IgG2a NEGATIVE CONTROL (MCA929)

North & South Tel: +1 800 265 7376

Worldwide

Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50

America Fax: +1 919 878 3751

Email: antibody\_sales\_us@bio-rad.com

Email: antibody\_sales\_uk@bio-rad.com

Europe

Email: antibody\_sales\_de@bio-rad.com

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