

## Datasheet: VMA00249KT

<b>Description:</b>	SURVIVAL MOTOR NEURON PROTEIN ANTIBODY WITH CONTROL LYSATE
<b>Specificity:</b>	SURVIVAL MOTOR NEURON PROTEIN
<b>Format:</b>	Purified
<b>Product Type:</b>	PrecisionAb Monoclonal
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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 [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Western Blotting	▪			1/1000

**PrecisionAb antibodies have been extensively [validated for the western blot application](#).** 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.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	20µl Mouse monoclonal antibody prepared by affinity chromatography on Protein G from ascites
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Immunogen</b>	Purified recombinant fragment of human SMN1 expressed in <i>E. coli</i>
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">Q16637</a> <a href="#">Related reagents</a>

**Entrez Gene:**

[6607](#) SMN2 [Related reagents](#)

**Synonyms**

SMN, SMNC, SMNT

**Specificity**

**Mouse anti Human survival motor neuron protein antibody** recognizes survival motor neuron 1 protein, also known as component of gems 1, gemin-1 and tudor domain containing 16A.

SMN1 is part of a 500 kb inverted duplication on chromosome 5q13. This duplicated region contains at least four genes and repetitive elements which make it prone to rearrangements and deletions. The repetitiveness and complexity of the sequence have also caused difficulty in determining the organization of this genomic region. The telomeric and centromeric copies of SMN1 gene are nearly identical and encode the same protein. However, mutations in SMN1, the telomeric copy, are associated with spinal muscular atrophy; mutations in the centromeric copy do not lead to disease. The centromeric copy may be a modifier of disease caused by mutation in the telomeric copy. The critical sequence difference between the two genes is a single nucleotide in exon 7, which is thought to be an exon splice enhancer. Note that the nine exons of both the telomeric and centromeric copies are designated historically as exon 1, 2a, 2b, and 3-8. It is thought that gene conversion events may involve the two genes, leading to varying copy numbers of each gene. The protein encoded by SMN1 localizes to both the cytoplasm and the nucleus. Within the nucleus, the protein localizes to subnuclear bodies called gems which are found near coiled bodies containing high concentrations of small ribonucleoproteins (snRNPs). This protein forms heteromeric complexes with proteins such as SIP1 and GEMIN4, and also interacts with several proteins known to be involved in the biogenesis of snRNPs, such as hnRNP U protein and the small nucleolar RNA binding protein. Two transcript variants encoding distinct isoforms have been described (provided by RefSeq, Sep 2008).

Mouse anti Human survival motor neuron protein antibody detects a band of 39 kDa. The antibody has been extensively validated for western blotting using whole cell lysates.

**Western Blotting**

Anti survival motor neuron protein detects a band of approximately 39 kDa in MCF7 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 MCF7 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.

<b>Storage</b>	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.
<b>Guarantee</b>	As supplied, 12 months from date of despatch.
<b>Acknowledgements</b>	PrecisionAb™ is a trademark of Bio-Rad Laboratories.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 #10561 available at: Antibody (10040): <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a> Lysate Material (10561): <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10561.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10561.pdf</a>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

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

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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