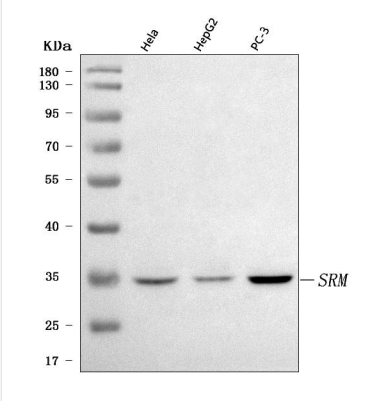
Spermidine Synthase/SRM (SRM) Antibody – Rabbit Polyclonal

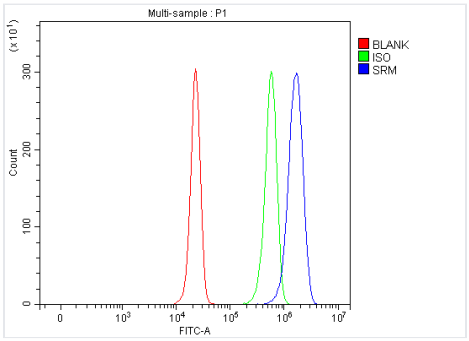
PRODUCT OVERVIEW

Product Name	Spermidine synthase/SRM, Polyclonal Antibody
Full Product Name	Anti-Spermidine synthase/SRM Antibody Picoband
Product Gene Name	anti-SRM antibody
Product Synonym Names	Growth/differentiation factor 15; neutrophil cytosolic factor 1; Neutrophil cytosol factor 1; NCF-1; 47 kDa autosomal chronic granulomatous disease protein; 47 kDa neutrophil oxidase factor; NCF-47K; Neutrophil NADPH oxidase factor 1; Nox organizer 2; Nox-organizing protein 2; SH3 and PX domain-containing protein 1A; p47-phox; NCF1; NOXO2; SH3PXD1A
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Specificity	Detected in peripheral blood monocytes and neutrophils (at protein level).
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.
Molecular Weight	33,825 Da
OMIM	182891
3D Structure	ModBase 3D Structure for P19623
Immunogen	E coli-derived human Spermidine synthase/SRM recombinant protein (Position: A15-E292).
Subcellular Localization	Cytoplasm, cytosol
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	NCF2, NCF1, and a membrane bound cytochrome b558 are required for activation of the latent NADPH oxidase (necessary for superoxide production).
Product Categories/Family for anti-SRM antibody	Primary Antibodies; Cancer; Cancer Metabolism; Energy Metabolism; Energy Transfer Pathways; Metabolic Signaling Pathways; Metabolism; Pathways and Processes; Signal Transduction
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-SRM antibody	Western Blot (WB), Flow Cytometry (FC/FACS), ELISA (EIA)
Application Notes for anti-SRM antibody	WB: 0.25-0.5ug/ml, Human FC/FACS (Fixed): 1-3ug/1x10^6 cells, Human ELISA: 0.1-0.5ug/ml
Related Product Information for anti-SRM antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.

Product References and Citations for anti-SRM antibody	1. Myohanen, S., Kauppinen, L., Wahlfors, J., Alhonen, L., Janne, J. Human spermidine synthase gene: structure and chromosomal localization. DNA Cell Biol. 10: 467-474, 1991. 2. Wahlfors, J., Alhonen, L., Kauppinen, L., Hyvonen, T., Janne, J., Eloranta, T. O. Human spermidine synthase: cloning and primary structure. DNA Cell Biol. 9: 103-110, 1990. Note: Erratum: DNA Cell Biol. 9: 543 only, 1990.3. Winqvist, R., Alanen, L., Grzeschik, K.-H., Janne, J., Eloranta, T. Mapping of DNA sequences for spermidine synthase to human chromosome 1p36-p22 and chromosome 3p14-q21. (Abstract) Cytogenet. Cell Genet. 58: 1865 only, 1991.
Other Notes	Small volumes of anti-SRM antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SRM purchase	MBS1758208 is an antibody targeting SRM. Also known as Anti-Spermidine synthase/SRM Antibody Picoband. Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-SRM antibody
Figure 1. Western blot analysis of Spermidine synthase/SRM using anti-Spermidine synthase/SRM antibody (MBS1758208).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human Hela whole cell lysates,Lane 2: human HepG2 whole cell lysates,Lane 3: human PC-3 whole cell lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Spermidine synthase/SRM antigen affinity purified polyclonal antibody (#MBS1758208) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (#MBS176460) with Tanon 5200 system. A specific band was detected for Spermidine synthase/SRM at approximately 34 kDa. The expected band size for Spermidine synthase/SRM is at 34 kDa.



Flow Cytometry (FC/FACS) of anti-SRM antibody
Figure 2. Flow Cytometry analysis of HepG2 cells using anti-Spermidine synthase/SRM antibody (MBS1758208).Overlay histogram showing HepG2 cells stained with MBS1758208 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Spermidine synthase/SRM Antibody (MBS1758208, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (MBS177405, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SRM. It may not necessarily be applicable to this product.

NCBI GI #	63253298
NCBI GeneID	6723
NCBI Accession #	NP_003123.2
UniProt Primary Accession #	P19623
UniProt Secondary Accession #	Q15511; B1AKP9
UniProt Related Accession #	P19623
GenBank Nucleotide #	NM_003132.2
NCBI Official Full Name	spermidine synthase
NCBI Official Synonym Full Names	spermidine synthase
NCBI Official Symbol	SRM

NCBI Official Synonym Symbols	PAPT; SPS1; SPDSY; SRML1
UniProt Protein Name	Spermidine synthase
UniProt Synonym Protein Names	Putrescine aminopropyltransferase
UniProt Gene Name	SRM
UniProt Synonym Gene Names	SPS1; SRML1; SPDSY
UniProt Entry Name	SPEE_HUMAN
NCBI Protein Information	spermidine synthase; putrescine aminopropyltransferase; spermidine synthase-1
NCBI Summary for SRM	The polyamines putrescine, spermine, and spermidine are ubiquitous polycationic mediators of cell growth and differentiation. Spermidine synthase is one of four enzymes in the polyamine-biosynthetic pathway and carries out the final step of spermidine biosynthesis. This enzyme catalyzes the conversion of putrescine to spermidine using decarboxylated S-adenosylmethionine as the cofactor. [provided by RefSeq, Jul 2008]
UniProt Comments for SRM	SRM: Catalyzes the production of spermidine from putrescine and decarboxylated S-adenosylmethionine (dcSAM). Has a strong preference for putrescine as substrate, and has very low activity towards 1,3-diaminopropane. Has extremely low activity towards spermidine. Belongs to the spermidine/spermine synthase family. Protein type: Amino Acid Metabolism - arginine and proline; Other Amino Acids Metabolism - glutathione; EC 2.5.1.16; Amino Acid Metabolism - cysteine and methionine; Other Amino Acids Metabolism - beta-alanine; Transferase Chromosomal Location of Human Ortholog: 1p36-p22 Cellular Component: cytosol Molecular Function: protein homodimerization activity; spermidine synthase activity Biological Process: spermidine biosynthetic process; polyamine metabolic process
Research Articles on SRM	**1.** Comparison of the structure of the human spermidine synthase with the known structure of T. maritima spermidine synthase provides a general mechanistic hypothesis for the aminopropyl transfer reaction.
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