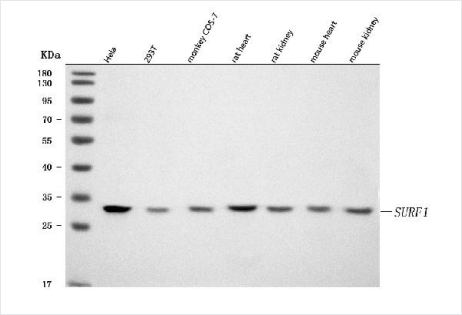
SURF1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

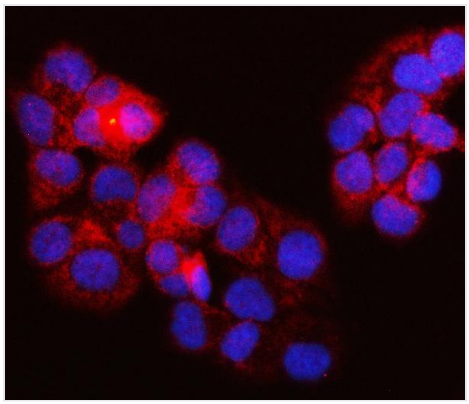
Product Name	SURF1, Polyclonal Antibody
Full Product Name	Anti-SURF1 Antibody Picoband
Product Gene Name	anti-SURF1 antibody
Product Synonym Names	Breast cancer metastasis-suppressor 1; selectin P ligand; p-selectin glycoprotein ligand; Selplg; Psgl1
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human, Monkey, Mouse, Rat
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Specificity	HighlyExpressed in blood, bone marrow, brain, adipose tissue, spleen, and thymus. AlsoExpressed in heart, kidney, liver, muscle, ovary, and stomach.
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	33,331 Da
Chromosome Location	Chromosome: 9; NC_000009.11 (136218666..136223361, complement). Location: 9q34.2
OMIM	185620
3D Structure	ModBase 3D Structure for Q15526
Immunogen	E coli-derived human SURF1 recombinant protein (Position: S27-R295).
Subcellular Localization	Integral component of membrane
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	A SLe (x)-type proteoglycan, which through high affinity, calcium-dependent interactions with E- and P-selectins, mediates rapid rolling of leukocytes over vascular surfaces during the initial steps in inflammation. Critical for the initial leukocyte capture.
Product Categories/Family for anti-SURF1 antibody	Primary Antibodies; Cardiovascular; Cell Biology; Platelets; Protease Inhibitors; Proteolysis/Ubiquitin; Proteolytic Enzymes
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-SURF1 antibody	Western Blot (WB), Immunocytochemistry (ICC), Immunofluorescence (IF), Flow Cytometry (FC/FACS), ELISA (EIA)
Application Notes for anti-SURF1 antibody	WB: 0.25-0.5ug/ml, Human, Mouse, Rat ICC/IF: 5ug/ml, Human FC/FACS (Fixed): 1-3ug/1x10^6 cells, Human ELISA: 0.1-0.5ug/ml

Related Product Information for anti-SURF1 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-SURF1 antibody	1. Agostino, A., Invernizzi, F., Tiveron, C., Fagiolari, G., Prelle, A., Lamantea, E., Giavazzi, A., Battaglia, G., Tatangelo, L., Tiranti, V., Zeviani, M. Constitutive knockout of Surf1 is associated with high embryonic lethality, mitochondrial disease and cytochrome c oxidase deficiency in mice. Hum. Molec. Genet. 12: 399-413, 2003. 2. Bohm, M., Pronicka, E., Karczmarewicz, E., Pronicki, M., Piekutowska-Abramczuk, D., Sykut-Cegielska, J., Mierzewska, H., Hansikova, H., Vesela, K., Tesarova, M., Houstkova, H., Houstek, J., Zeman, J. Retrospective, multicentric study of 180 children with cytochrome c oxidase deficiency. Pediat. Res. 59: 21-26, 2006. 3. Colombo, P., Yon, J., Garson, K., Fried, M. Conservation of the organization of five tightly clustered genes over 600 million years of divergent evolution. Proc. Nat. Acad. Sci. 89: 6358-6362, 1992.
Other Notes	Small volumes of anti-SURF1 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 SURF1 purchase	MBS1758420 is an antibody targeting SURF1. Also known as Anti-SURF1 Antibody Picoband. Reactive in Human, Monkey, Mouse, Rat. Host: Rabbit.



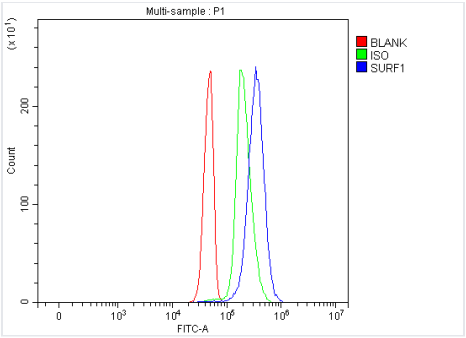
Western Blot (WB) of anti-SURF1 antibody

Figure 1. Western blot analysis of SURF1 using anti-SURF1 antibody (MBS1758420).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 293T whole cell lysates,Lane 3: monkey COS-7 whole cell lysates,Lane 4: rat heart tissue lysates,Lane 5: rat kidney tissue lysates,Lane 6: mouse heart tissue lysates,Lane 7: mouse kidney tissue 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-SURF1 antigen affinity purified polyclonal antibody (#MBS1758420) 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 SURF1 at approximately 33 kDa. The expected band size for SURF1 is at 33 kDa.



Immunofluorescence (IF) of anti-SURF1 antibody

Figure 2. IF analysis of SURF1 using anti-SURF1 antibody (MBS1758420).SURF1 was detected in an immunocytochemical section of T47D cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (#MBS176582) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-SURF1 Antibody (MBS1758420) overnight at 4 degree C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry (FC/FACS) of anti-SURF1 antibody
Figure 3. Flow Cytometry analysis of Jurkat cells using anti-SURF1 antibody (MBS1758420).Overlay histogram showing Jurkat cells stained with MBS1758420 (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-SURF1 Antibody (MBS1758420, 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 SURF1. It may not necessarily be applicable to this product.

NCBI GI #	4507319
NCBI GeneID	6834
NCBI Accession #	NP_003163.1
UniProt Primary Accession #	Q15526
UniProt Secondary Accession #	Q5T8T3; Q5T8T4
UniProt Related Accession #	Q15526
GenBank Nucleotide #	NM_003172.2
NCBI Official Full Name	surfeit locus protein 1
NCBI Official Synonym Full Names	surfeit 1
NCBI Official Symbol	SURF1
UniProt Protein Name	Surfeit locus protein 1
Protein Family	SURF1-like protein
UniProt Gene Name	SURF1
UniProt Synonym Gene Names	SURF-1
UniProt Entry Name	SURF1_HUMAN
NCBI Protein Information	surfeit locus protein 1
NCBI Summary for SURF1	This gene encodes a protein localized to the inner mitochondrial membrane and thought to be involved in the biogenesis of the cytochrome c oxidase complex. The protein is a member of the SURF1 family, which includes the related yeast protein SHY1 and rickettsial protein RP733. The gene is located in the surfeit gene cluster, a group of very tightly linked genes that do not share sequence similarity, where it shares a bidirectional promoter with SURF2 on the opposite strand. Defects in this gene are a cause of Leigh syndrome, a severe neurological disorder that is commonly associated with systemic cytochrome c oxidase deficiency. [provided by RefSeq, Jul 2008]

UniProt Comments for SURF1	SURF1: Probably involved in the biogenesis of the COX complex. Defects in SURF1 are a cause of Leigh syndrome (LS). LS is a severe neurological disorder characterized by bilaterally symmetrical necrotic lesions in subcortical brain regions that is commonly associated with systemic cytochrome c oxidase (COX) deficiency. Belongs to the SURF1 family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Mitochondrial; Oxidoreductase; Membrane protein, multi-pass; Membrane protein, integral Chromosomal Location of Human Ortholog: 9q34.2 Cellular Component: integral to membrane; mitochondrial respiratory chain Molecular Function: protein binding; cytochrome-c oxidase activity Biological Process: respiratory chain complex IV assembly; ATP biosynthetic process; aerobic respiration; oxidative phosphorylation Disease: Leigh Syndrome
Research Articles on SURF1	**1.** This study suggested that hypertrophic olivary degeneration on magnetic resonance imaging in mitochondrial syndromes associated with POLG and SURF1 mutations.
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