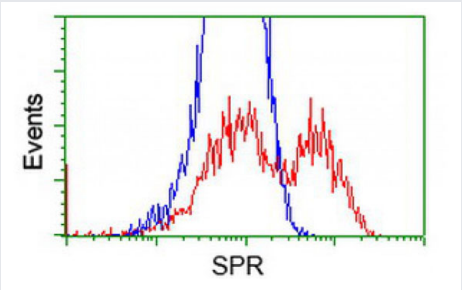
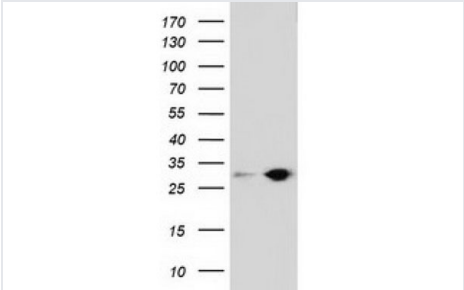
SPR Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

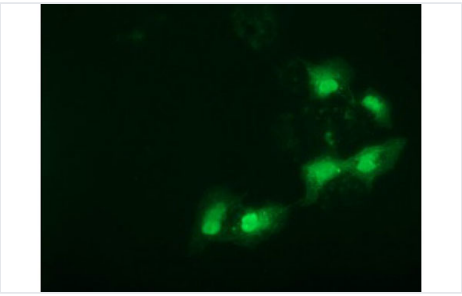
Product Name	SPR, Monoclonal Antibody
Full Product Name	SPR antibody
Product Gene Name	anti-SPR antibody
Product Synonym Names	Monoclonal SPR; Anti-SPR; Sepiapterin reductase; SDR38C1; Short chain dehydrogenase/reductase family 38C member 1
Clonality	Monoclonal
Isotype	IgG1
Clone Number	3A9
Host	Mouse
Form/Format	Supplied in PBS buffer, pH 7.3, containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Purity/Purification	SPR antibody was purified by affinity chromatography.
Concentration	500 ug-1 mg/ml (lot specific)
Preparation and Storage	Store at 4 degree C for short term storage. Aliquot and store at -20 degree C for long term storage. Avoid repeated freeze/thaw cycles.
Molecular Weight	28,048 Da
OMIM	182125
3D Structure	ModBase 3D Structure for P35270
Cross-Reactivity	Human, Monkey
Immunogen	SPR antibody was raised in mouse using a full length recombinant protein of human SPR (NP_003115) produced in HEK293T cells, as the immunogen.
Product Categories/Family for anti-SPR antibody	Proteases; Inhibitors; & Enzymes
Applications Tested/Suitable for anti-SPR antibody	Flow Cytometry (FC/FACS), Immunofluorescence (IF), Western Blot (WB)
Application Notes for anti-SPR antibody	FC: 1:100 IF: 1:100 WB: 1:500-2000
Related Product Information for anti-SPR antibody	MBS832852 is an antibody targeting SPR. Also known as SPR antibody. Host: Mouse. Mouse monoclonal SPR antibody
Other Notes	Small volumes of anti-SPR 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.



Flow Cytometry (FC/FACS) of anti-SPR antibody
Flow Cytometric analysis of HEK293T cells transfected with either recombinant SPR protein (red) or empty vector (blue) stained using SPR antibody



Western Blot (WB) of anti-SPR antibody
Western Blot analysis of HEK293T cell lysates (5 ug) transfected with either recombinant SPR protein (Right) or empty vector (Left) detected with SPR antibody



Immunofluorescence (IF) of anti-SPR antibody
Immunofluorescent staining of COS7 cells transiently transfected with recombinant SPR protein using SPR antibody

ADDITIONAL DETAILS

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

NCBI GI #	4507185
NCBI GeneID	6697
NCBI Accession #	NP_003115
UniProt Primary Accession #	P35270
UniProt Secondary Accession #	Q53GI9; Q9UBB1; A8K741; D6W5H2
UniProt Related Accession #	P35270
GenBank Nucleotide #	NM_003124.4
NCBI Official Full Name	sepiapterin reductase
NCBI Official Synonym Full Names	sepiapterin reductase (7,8-dihydrobiopterin:NADP+ oxidoreductase)
NCBI Official Symbol	SPR
NCBI Official Synonym Symbols	SDR38C1
UniProt Protein Name	Sepiapterin reductase
Protein Family	Sex peptide receptor
UniProt Gene Name	SPR
UniProt Synonym Gene Names	SPR
UniProt Entry Name	SPRE_HUMAN
NCBI Protein Information	sepiapterin reductase

NCBI Summary for SPR	This gene encodes an aldo-keto reductase that catalyzes the NADPH-dependent reduction of pteridine derivatives and is important in the biosynthesis of tetrahydrobiopterin (BH4). Mutations in this gene result in DOPA-responsive dystonia due to sepiaterin reductase deficiency. A pseudogene has been identified on chromosome 1. [provided by RefSeq, Jul 2008]
UniProt Comments for SPR	SPR: Catalyzes the final one or two reductions in tetra- hydrobiopterin biosynthesis to form 5,6,7,8-tetrahydrobiopterin. Defects in SPR are the cause of dystonia DOPA-responsive due to sepiapterin reductase deficiency (DRDSPRD). In the majority of cases, patients manifest progressive psychomotor retardation, dystonia and spasticity. Cognitive anomalies are also often present. The disease is due to severe dopamine and serotonin deficiencies in the central nervous system caused by a defect in BH4 synthesis. Dystonia is defined by the presence of sustained involuntary muscle contractions, often leading to abnormal postures. Belongs to the sepiapterin reductase family. Protein type: Cofactor and Vitamin Metabolism - folate biosynthesis; Oxidoreductase; EC 1.1.1.153 Chromosomal Location of Human Ortholog: 2p14-p12 Cellular Component: nucleoplasm; mitochondrion; cytoplasm; cytosol Molecular Function: aldo-keto reductase activity; sepiapterin reductase activity; NADP binding Biological Process: tetrahydrobiopterin biosynthetic process; voluntary musculoskeletal movement; pteridine metabolic process; death; regulation of multicellular organism growth; norepinephrine metabolic process; nitric oxide metabolic process; dopamine metabolic process; L-phenylalanine metabolic process; neuron morphogenesis during differentiation; regulation of nitric-oxide synthase activity; nitric oxide biosynthetic process; serotonin metabolic process Disease: Dystonia, Dopa-responsive, Due To Sepiapterin Reductase Deficiency
Research Articles on SPR	**1.** new homozygous mutation in the SPR gene was found in two sisters with dopa-responsive dystonia
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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