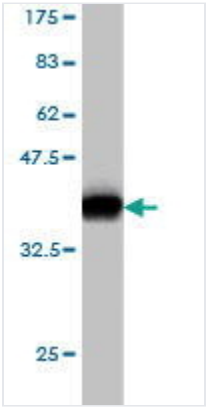
DARS Antibody – Mouse Monoclonal

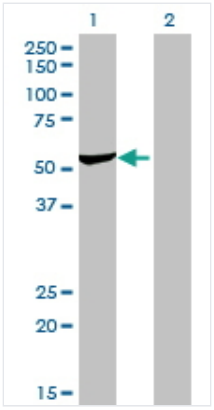
PRODUCT OVERVIEW

Product Name	DARS, Monoclonal Antibody
Full Product Name	DARS (Aspartyl-tRNA Synthetase, Cytoplasmic, Aspartate-tRNA Ligase, AspRS, Cell Proliferation-inducing Gene 40 Protein, PIG40) (PE)
Product Gene Name	anti-DARS antibody
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	2F11
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with R-Phycoerythrin (PE).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human DARS.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amo prior to immediate use. Further dilutions can be made in assay buffer. Caution: PE conjugates are sensitive to light. For maximum recovery of product, the original vial prior to removing the cap.
Molecular Weight	59.3 kDa (521aa)
OMIM	603084
3D Structure	ModBase 3D Structure for P14868
Immunogen	Partial recombinant corresponding to aa393-500 from human DARS (NP_001340) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	KYPLAVRPFYTMPDPRNPKQSNSYDMFMRGEEILSGAQRIHDPQLLTERALHHGIDLEKIKAYIDSFRFGAPPHAGGGIGLERVTMLFLGLHNVRQTSMFF
Conjugate	PE
Product Categories/Family for anti-DARS antibody	Antibodies; Enzymes; Synthase
Applications Tested/Suitable for anti-DARS antibody	ELISA (EIA), Immunohistochemistry (IHC) Paraffin, Western Blot (WB)
Application Notes for anti-DARS antibody	IHC-P: 3ug/ml Applications are based on unconjugated antibody.
Related Product Information for anti-DARS antibody	MBS6157377 is an antibody targeting DARS. Also known as DARS (Aspartyl-tRNA Synthetase, Cytoplasmic, Aspartate-tRNA Ligase, AspRS, Cell Pro inducing Gene 40 Protein, PIG40) (PE). Reactive in Human. Host: Mouse.

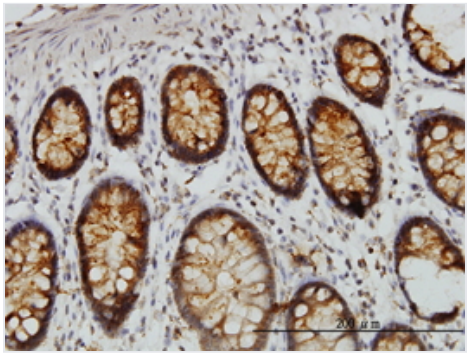
Product References and Citations for anti-DARS antibody	1. Proteomic identification of putative biomarkers of radiotherapy resistance: a possible role for the 26S proteasome? Smith L, Qutob O, Watson MB, B Potts D, Welham KJ, Garimella V, Lind MJ, Drew PJ, Cawkwell L.Neoplasia. 2009 Nov;11(11):1194-207.
Other Notes	Small volumes of anti-DARS antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necess 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 may apply.



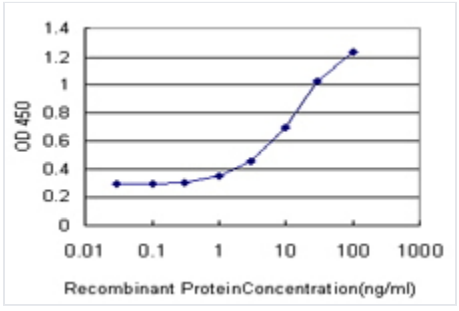
Western Blot (WB) of anti-DARS antibody
Western Blot detection against Immunogen (37.62kD).



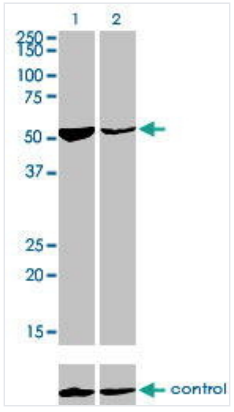
Western Blot (WB) of anti-DARS antibody
Western Blot analysis of DARS expression in transfected 293T cell line by DARS monoclonal antibody. Lane 1: DARS transfected lysate (57.1kD). Lane 2: Non-transfected lysate.



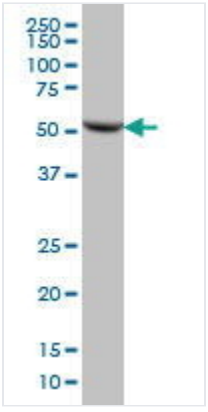
Immunohistochemistry (IHC) of anti-DARS antibody
Immunoperoxidase of monoclonal antibody to DARS on formalin-fixed paraffin-embedded human colon. [antibody concentration 3ug/ml].



Testing Data of anti-DARS antibody
Detection limit for recombinant GST tagged DARS is ~0.3ng/ml as a capture antibody.



Western Blot (WB) of anti-DARS antibody
Western blot analysis of DARS over-expressed 293 cell line, cotransfected with DARS Validated Chimera RNAi (Lane 2) or non-transfected control (Lane 1). Blot probed with DARS monoclonal antibody. GAPDH (36.1kD) used as specificity and loading control.



Western Blot (WB) of anti-DARS antibody
DARS monoclonal antibody Western Blot analysis of DARS expression in HeLa.

ADDITIONAL DETAILS

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

NCBI GI #	45439306
NCBI GeneID	1615
NCBI Accession #	NP_001340
UniProt Primary Accession #	P14868
UniProt Secondary Accession #	Q2TNI3; Q32Q69; Q53HV4; Q53YC5; Q68CR9; Q9BW52; A8K3J2; D3DP77
UniProt Related Accession #	P14868
GenBank Nucleotide #	NM_001349
NCBI Official Full Name	aspartate--tRNA ligase, cytoplasmic isoform 1
NCBI Official Synonym Full Names	aspartyl-tRNA synthetase
NCBI Official Symbol	DARS
NCBI Official Synonym Symbols	HBSL; aspRS
UniProt Protein Name	Aspartate--tRNA ligase, cytoplasmic
UniProt Synonym Protein Names	Aspartyl-tRNA synthetase; AspRS; Cell proliferation-inducing gene 40 protein
UniProt Gene Name	DARS
UniProt Synonym Gene Names	AspRS
UniProt Entry Name	SYDC_HUMAN
NCBI Protein Information	aspartate--tRNA ligase, cytoplasmic
NCBI Summary for DARS	This gene encodes a member of a multienzyme complex that functions in mediating the attachment of amino acids to their cognate tRNAs. The encoded protein ligates L-aspartate to tRNA(Asp). Mutations in this gene have been found in patients showing hypomyelination with brainstem and spinal cord involvement and leg spasticity. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jun 2014]
UniProt Comments for DARS	DARS: Catalyzes the specific attachment of an amino acid to its cognate tRNA in a 2 step reaction: the amino acid (AA) is first activated by ATP to form AA-AMP and then transferred to the acceptor end of the tRNA. Belongs to the class-II aminoacyl-tRNA synthetase family. Protein type: Translation; EC 6.1.1.12; Ligase Chromosomal Location of Human Ortholog: 2q21.3 Cellular Component: membrane; cytoplasm; cytosol Molecular Function: protein binding; aspartate-tRNA ligase activity; ATP binding; aminoacylase activity Biological Process: tRNA aminoacylation for protein translation; translation; aspartyl-tRNA aminoacylation; protein complex assembly; gene expression Disease: Hypomyelination With Brainstem And Spinal Cord Involvement And Leg Spasticity
Research Articles on DARS	**1.** Genetic variants of the DARS gene may influence individual susceptibility to isolated VSD in Chinese Han population. Risk of VSD was significantly associated with rs2164331 [G/A; odds ratio (OR) = 0.78, 95% confidence interval (CI) = 0.69-0.91; P = 3.17 x 10(-3)], rs6738266 [G/A; OR = 1.17, 95% CI = 1.05-1.29, P = 1.83 x 10(-3)], and rs309143 [G/A; OR = 1.09, 95% CI = 1.01-1.17; P = 3.12 x 10(-2)].
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