DSE Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	DSE, Monoclonal Antibody
Full Product Name	DSE (Dermatan-sulfate Epimerase, DS Epimerase, Chondroitin-glucuronate 5-epimerase, Squamous Cell Carcinoma Antigen Recognized by T-cells 2, SART2, SART-2) (MaxLight 650)
Product Gene Name	anti-DSE antibody
Product Synonym Names	EC=5.1.3.19; dJ323M4; dJ323M4.1; RP3-323M4.1; SH3D6A
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	6D4
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight650.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human SART2.
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 amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight650 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
OMIM	605942
3D Structure	ModBase 3D Structure for Q9UL01
Immunogen	Partial recombinant corresponding to aa574-674 from human SART2 (NP_037484) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	GEESPLETAASFFHNVDVPFEETVVDGVHGAFIRQRDGLYKMYWMDDTGYSEKATFASVTYPRGYPYNGTNYVNVTMHLRSPITRAAYLFIGPSIDVQS*
Conjugate	MaxLight650
Product Categories/Family for anti-DSE antibody	Antibodies; Enzymes
Applications Tested/Suitable for anti-DSE antibody	FLISA, Western Blot (WB)
Application Notes for anti-DSE antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-DSE antibody	DSE is a tumor-rejection antigen. This antigen possesses tumor epitopes capable of inducing HLA-A24-restricted and tumor-specific cytotoxic T lymphocytes in cancer patients and may be useful for specific immunotherapy. This protein is localized to the endoplasmic reticulum.

Other Notes	Small volumes of anti-DSE 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 DSE purchase	MBS6224497 is an antibody targeting DSE. Also known as DSE (Dermatan-sulfate Epimerase, DS Epimerase, Chondroitin-glucuronate 5-epimerase, Squamous Cell Carcinoma Antigen Recognized by T-cells 2, SART2, SART-2) (MaxLight 650). Reactive in Human. Host: Mouse.

ADDITIONAL DETAILS

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

NCBI GI #	7019521
NCBI GeneID	29940
NCBI Accession #	NP_037484
UniProt Primary Accession #	Q9UL01
UniProt Related Accession #	Q9UL01
GenBank Nucleotide #	NM_013352
NCBI Official Full Name	dermatan-sulfate epimerase isoform a
NCBI Official Synonym Full Names	dermatan sulfate epimerase
NCBI Official Symbol	DSE
NCBI Official Synonym Symbols	DSEP; DSEPI; SART2; EDSMC2; SART-2; DS-epi1
UniProt Protein Name	Dermatan-sulfate epimerase
UniProt Synonym Protein Names	Chondroitin-glucuronate 5-epimerase; Squamous cell carcinoma antigen recognized by T-cells 2
Protein Family	Dermatan-sulfate epimerase
UniProt Gene Name	DSE
UniProt Synonym Gene Names	SART2; DS epimerase; SART-2
UniProt Entry Name	DSE_HUMAN
NCBI Protein Information	dermatan-sulfate epimerase
NCBI Summary for DSE	The protein encoded by this gene is a tumor-rejection antigen. It is localized to the endoplasmic reticulum and functions to convert D-glucuronic acid to L-iduronic acid during the biosynthesis of dermatan sulfate. This antigen possesses tumor epitopes capable of inducing HLA-A24-restricted and tumor-specific cytotoxic T lymphocytes in cancer patients and may be useful for specific immunotherapy. Mutations in this gene cause inmusculocontractural Ehlers-Danlos syndrome. Alternative splicing results in multiple transcript variants. A related pseudogene has been identified on chromosome 9, and a paralogous gene exists on chromosome 18. [provided by RefSeq, Apr 2016]

UniProt Comments for DSE	SART2: Converts D-glucuronic acid to L-iduronic acid (IdoUA) residues. Belongs to the dermatan-sulfate isomerase family. Protein type: Isomerase; Endoplasmic reticulum; Membrane protein, integral; EC 5.1.3.19; Glycan Metabolism - chondroitin sulfate biosynthesis; Membrane protein, multi-pass Chromosomal Location of Human Ortholog: 6q22 Cellular Component: Golgi membrane; Golgi apparatus; endoplasmic reticulum; integral to membrane Molecular Function: chondroitin-glucuronate 5-epimerase activity Biological Process: chondroitin sulfate metabolic process; chondroitin sulfate biosynthetic process; glycosaminoglycan metabolic process; heparan sulfate proteoglycan biosynthetic process; carbohydrate metabolic process; pathogenesis; dermatan sulfate biosynthetic process Disease: Ehlers-danlos Syndrome, Musculocontractural Type 2
Research Articles on DSE	**1.** DS-epi1, DS-epi2, and D4ST1 form homomers and are all part of a hetero-oligomeric complex where D4ST1 directly interacts with DS-epi1, but not with DS-epi2. The cooperation of DS-epi1 with D4ST1 may therefore explain the processive mode of the formation of iduronic acid blocks.
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