Dermatan Sulfate Epimerase (DSE) ELISA Kit for Human

PRODUCT OVERVIEW

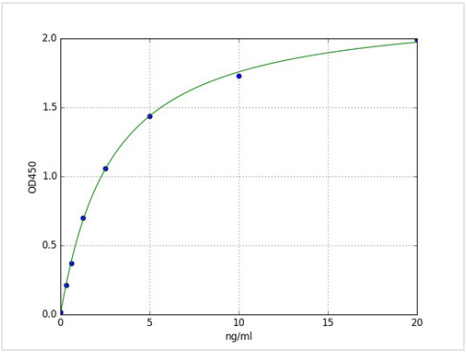
Product Name	Dermatan Sulfate Epimerase (DSE), ELISA Kit
Full Product Name	Human Dermatan Sulfate Epimerase ELISA Kit
Product Gene Name	DSE elisa kit
Product Synonym Names	DSE/Dermatan Sulfate Epimerase
Species Reactivity	Human
Assay Type	Sandwich ELISA, Double Antibody
Samples	Serum, Plasma, Cell Culture Supernatant, cell or tissue lysate, Other liquid samples
Detection Range	0.313-20ng/ml
Sensitivity	0.188ng/ml
Preparation and Storage	Store entire kit at 2-8C for short-term. For longer-term, please store the microplate & standard at -20C, while the remaining reagents can be stored at 2-8C
Molecular Weight	109,773 Da
OMIM	605942
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for DSE elisa kit	Principle of the Assay||This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Anti-Human DSE antibody was pre-coated onto 96-well plates. And the biotin conjugated anti-Human DSE antibody was used as detection antibodies. The standards, test samples and biotin conjugated detection antibody were added to the wells subsequently, and wash with wash buffer. HRP-Streptavidin was added and unbound conjugates were washed away with wash buffer. TMB substrates were used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the Human DSE amount of sample captured in plate. Read the O.D. absorbance at 450nm in a microplate reader, and then the concentration of Human DSE can be calculated.
Other Notes	Small volumes of DSE elisa kit 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	MBS761561 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Dermatan Sulfate Epimerase (DSE) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing DSE. The ELISA analytical biochemical technique of the MBS761561 kit is based on DSE antibody-DSE antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect DSE antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, DSE. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).

Typical Data & Standard Curve

Results of a typical standard run of a Human DSE ELISA Kit are shown below. This standard curve was generated at our lab for demonstration purpose only. Each user should obtain their own standard curve as per experiment. (N/A=not applicable)

X	ng/ml	0	0.313	0.625	1.25	2.5	5	10	20
Y	OD450	0.075	0.161	0.242	0.327	0.647	1.115	1.803	2.943

Typical Testing Data of DSE elisa kit



Typical Standard Curve of DSE elisa kit

ADDITIONAL DETAILS

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

NCBI GI #	124494231
NCBI GeneID	29940
NCBI Accession #	NP_001074445.1
UniProt Secondary Accession #	Q5R3K6
UniProt Related Accession #	Q9UL01
GenBank Nucleotide #	NM_001080976.1
NCBI Official Full Name	dermatan-sulfate epimerase
NCBI Official Synonym Full Names	dermatan sulfate epimerase
NCBI Official Symbol	DSE
NCBI Official Synonym Symbols	DSEP; DSEPI; SART2; EDSMC2; SART-2
UniProt Protein Name	Dermatan-sulfate epimerase
UniProt Synonym Protein Names	Chondroitin-glucuronate 5-epimerase; Squamous cell carcinoma antigen recognized by T-cells 2; SART-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. 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 gene product is localized to the endoplasmic reticulum. Two transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008]

UniProt Comments for DSE	SART2: Converts D-glucuronic acid to L-iduronic acid (IdoUA) residues. Belongs to the dermatan-sulfate isomerase family. Protein type: Glycan Metabolism - chondroitin sulfate biosynthesis; EC 5.1.3.19; Membrane protein, integral; Membrane protein, multi-pass; Endoplasmic reticulum; Isomerase Chromosomal Location of Human Ortholog: 6q22 Cellular Component: endoplasmic reticulum; Golgi apparatus; Golgi membrane; integral to membrane Molecular Function: chondroitin-glucuronate 5-epimerase activity Biological Process: carbohydrate metabolic process; chondroitin sulfate biosynthetic process; chondroitin sulfate metabolic process; dermatan sulfate biosynthetic process; glycosaminoglycan metabolic process; heparan sulfate proteoglycan biosynthetic process Disease: Ehlers-danlos Syndrome, Musculocontractural Type 2
Research Articles on DSE	**1.** study identified a homozygous DSE missense mutation (c.803C>T, p.S268L) in a male child with musculocontractural type of Ehlers-Danlos syndrome; data indicate mutation affects the epimerase activity, resulting in reduced dermatan sulfate (DS) biosynthesis and an increased synthesis or an accumulation or reduced conversion of chondroitin sulfate
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