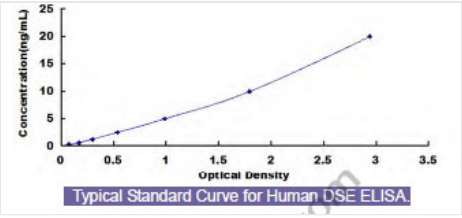
# Dermatan Sulfate Epimerase (DSE) ELISA Kit for Human

## PRODUCT OVERVIEW

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| **Product Name** | Dermatan Sulfate Epimerase (DSE), ELISA Kit |
| **Full Product Name** | Human Dermatan Sulfate Epimerase (DSE) ELISA Kit |
| **Product Gene Name** | DSE elisa kit |
| **Species Reactivity** | Human |
| **Assay Type** | Sandwich |
| **Samples** | Tissue homogenates, cell lysates and other biological fluids. |
| **Detection Range** | 0.312-20ng/mL |
| **Sensitivity** | 0.114ng/mL |
| **Specificity** | This assay has high sensitivity and excellent specificity for detection of DSE. No significant cross-reactivity or interference between DSE and analogues was observed. |
| **Preparation and Storage** | For unopened kit, all reagents should be kept according to the labels on vials. The TMB Substrate, Wash Buffer, Stop Solution should be stored at 4 degree C. All others should be stored at -20 degree C. |
| **Inter-assay Precision** | Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level DSE were tested on 3 different plates, 8 replicates in each plate. CV(%) = SD/meanX100. Inter-Assay: CV<12% |
| **Intra-assay Precision** | Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level DSE were tested 20 times on one plate, respectively. Intra-Assay: CV<10% |
| **Molecular Weight** | 109,773 Da |
| **OMIM** | AF098066 mRNA |
| **3D Structure** | ModBase 3D Structure for Q9UL01 |
| **ISO Certification** | Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory. |
| **Related Product Information for DSE elisa kit** | Intended Uses: The kit is a sandwich enzyme immunoassay for in vitro quantitative measurement of DSE in human tissue homogenates, cell lysates and other biological fluids.<br><br>Principle of the Assay: The microtiter plate provided in this kit has been pre-coated with an antibody specific to DSE. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to DSE. Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain DSE, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm +/- 10nm. The concentration of DSE in the samples is then determined by comparing the O.D. of the samples to the standard curve. |
| **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** | MBS455196 is a ready-to-use microwell, strip-or-full 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 MBS455196 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 Testing Data/Standard Curve (for reference only) 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.

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| **NCBI GI #** | 124494231 |
| **NCBI GeneID** | 29940 |
| **NCBI Accession #** | NP_001074445.1 |
| **UniProt Primary Accession #** | Q9UL01 |
| **UniProt Secondary Accession #** | Q5R3K6 |
| **UniProt Related Accession #** | Q9UL01 |
| **GenBank Nucleotide #** | NM_001080976.2 |
| **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; SART-2 |
| **Protein Family** | Dermatan-sulfate epimerase |
| **UniProt Gene Name** | DSE |
| **UniProt Synonym Gene Names** | SART2; DS epimerase; SART-2 |
| **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** | Converts D-glucuronic acid to L-iduronic acid (IdoUA) residues. |
| **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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