Dermatan Sulfate (DS) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Dermatan Sulfate (DS), ELISA Kit
Full Product Name	Human Dermatan Sulfate ELISA Kit
Product Gene Name	DS elisa kit
Species Reactivity	Human
Assay Type	Quantitative Sandwich
Samples	undiluted original Human body fluids, tissue homogenates, secretions or feces samples
Detection Range	25ng/ml-800ng/mL
Sensitivity	5.0ng/mL
Specificity	No significant cross-reactivity or interference between this analyte and analogues is observed.
Preparation and Storage	Store all reagents at 2-8 degree C
Inter-assay Precision	Inter-assay CV (%) is less than 15%. [CV(%) = SD/mean ×100].
Intra-assay Precision	Intra-assay CV (%) is less than 15%.
Molecular Weight	109,773 Da
OMIM	605942
3D Structure	ModBase 3D Structure for Q9UL01
Related Product Information for DS elisa kit	Background: This Quantitative Sandwich ELISA kit is only for in vitro research use only! This kit is intended to be used for determination the level of DS (hereafter termed "analyte") in undiluted original Human body fluids, tissue homogenates, secretions or feces samples. This kit is NOT suitable for assaying non-biological sources of substances.
Other Notes	Small volumes of DS 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 DS purchase	MBS018572 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Dermatan Sulfate (DS) 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 DS. The ELISA analytical biochemical technique of the MBS018572 kit is based on DS antibody-DS antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect DS antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, DS. 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(%).

ADDITIONAL DETAILS

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

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_001080976.1
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
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; DS epimerase; chondroitin-glucuronate 5-epimerase; squamous cell carcinoma antigen recognized by T-cells 2
NCBI Summary for DS	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 DS	SART2: Converts D-glucuronic acid to L-iduronic acid (IdoUA) residues. Belongs to the dermatan-sulfate isomerase family. Protein type: Membrane protein, integral; Isomerase; Membrane protein, multi-pass; EC 5.1.3.19; Endoplasmic reticulum; Glycan Metabolism - chondroitin sulfate biosynthesis 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 DS	**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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