



Lifespan Technologies
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Product No: **K-6000**

K-6000 Dermatan / Heparan sulfate
ELISA for plasma

K-6000: Dermatan Sulfate (DS) / Heparan Sulfate (HS) ELISA for plasma Samples

INTENDED USE: THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT INTENDED FOR CLINICAL OR DIAGNOSTIC USE.

Kit includes:

Coated 96-well plate
Detector -Enzyme Conjugate vial
Conjugate Diluent
TMB Solution
Stop Solution, 0.5M H₂SO₄
Wash Concentrate 10X, (dilute 1 part plus 9 parts water to make TBS plus 0.05% TWEEN 20)

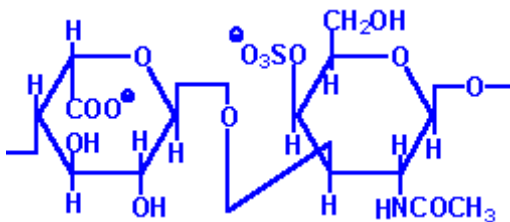
Researcher must provide:

Normal Plasma
Pipettes (8-channel multipipettor recommended)
Absorbance microplate reader
Dextran and/or Heparan sulfate standards
Plate Cover

Storage and Stability

Kit can be stored unopened at 4°C for up to six months. Opened solutions can be used for up to one week when stored at 4°C. All components and solutions should be protected from light. Reconstituted detector-enzyme conjugate is unstable and should be used immediately or frozen at -80°C.

Background



Dermatan sulfate (DS) (structure shown) is in the polysaccharide family glycosaminoglycan. DS is found mostly in the skin but also in blood vessels, tendons, heart valves, and pulmonary connective tissue. Heparan sulfate (HS) is a glycosaminoglycan that is found on the surface of most cells as part of proteoglycans. Heparan sulfate is also present in the extracellular matrix. The polysaccharide mediates the interactions between a number of different proteins.

The DS / HS ELISA, product number K-6000, is a quantitative enzyme-linked assay designed for the *in vitro* measurement of DS and/or HS levels in plasma. This assay measures DS / HS directly using a DS / HS binding protein which has been conjugated to HRP.

The DS / HS -ELISA is a competitive assay in which the colorimetric signal is inversely proportional to the amount of DS / HS present in the sample. Samples to be assayed are first mixed with the detector-enzyme conjugate in wells of the coated plate. DS / HS in the sample competes with DS / HS bound to the plate for binding of the detector-enzyme conjugate. The concentration of DS / HS in the sample is determined using a standard curve of known amounts of DS / HS.

Crossreactivity

The ELISA can measure either dermatan sulfate or heparan sulfate. Other endogenous glycosaminoglycans such as hyaluronic acid, keratan sulfate and chondroitin sulfate cross-react less than 1%.

Reagent Preparation

Dermatan Sulfate or HS Standards: Prepare standards using fresh normal human plasma and your Dermatan Sulfate or HS to obtain standards of 1, 3, 10, 30, 100 and 300 µg/mL. **Standardization should be performed using Dermatan Sulfate or HS that is the same Dermatan Sulfate or HS type contained in your unknowns.**

