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Product No: **K-4200**

Dextran Sulfate 5000 0.01-1.0 µg/mL
Dextran Sulfate 500000 0.003- 0.3 µg/mL
ELISA Buffer/Urine

Dextran Sulfate ELISA Kit for Buffer/Urine 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)

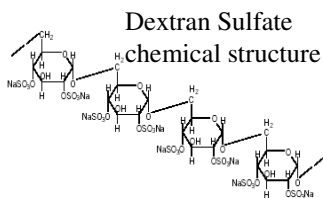
Researcher must provide:

Pipettes
Absorbance microplate reader
Dextran sulfate standards
Normal Saline (154 mM NaCl)
Plate Cover

Storage and Stability

Kit can be stored unopened at 4°C for up to six months. Opened and reconstituted 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 should be used immediately or aliquotted and stored at -80°C.

Background



Dextran Sulfate is in the family glycosaminoglycan. It is a polyanionic dextran derivative which may be synthesized from various high purity and well-characterized dextran fractions. In clinical research, anticoagulant dextran sulfate properties have been tested as a possible substitute for heparin in anticoagulant therapy. Another source of interest relates to the effect of dextran sulfate on enzyme inhibition in certain biological systems. Dextran sulfate is used to precipitate LDL and VLDL in plasma fractionation procedures. Dextran sulfate must then be removed from the product. The K-

4200 assay allows measurement of extremely low levels of dextran sulfate and gives manufacturers quantitative data that they have removed dextran sulfate from their product.

The dextran sulfate ELISA product number K-4200 is a quantitative enzyme-linked assay designed for the *in vitro* measurement of dextran sulfate levels in low protein content fluids such as buffer or urine. This assay measures dextran sulfate directly using a dextran sulfate binding protein which has been conjugated to HRP.

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

Reagent Preparation

Dextran Sulfate Standards: Make dilutions of your dextran sulfate using normal saline (154 mM NaCl) to obtain standards of 0.003, 0.01, 0.03, 0.1, 0.3, and 1.0 µg/mL. **Standardization should be performed using dextran sulfate that is the same dextran sulfate type contained in your unknowns.**

Working Detector-Enzyme Conjugate: Measure exactly **5.2 mL** of conjugate diluent and add to a clean tube. Perform a 'clean transfer' of the lyophilized Detector-Enzyme Conjugate into the 5.2 mL of conjugate diluent. This can be done by adding 500 microliters of the measured Diluent to reconstitute the Detector-Enzyme. Wait a minute to allow the lyophilized material to dissolve and then add to the liquid back to the tube. Repeat this step two more times to be sure all the Detector-Enzyme Conjugate has been transferred from the vial to the tube. Reconstituted Detector-Enzyme Conjugate can be stored at 4°C for no more than 7 days.

