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Product No: **K-3800**

Dextran Sulfate 5000 0.003-0.1  $\mu\text{g}/\text{mL}$   
ELISA Buffer/Urine

## Dextran Sulfate 5000 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  $\text{H}_2\text{SO}_4$   
Wash Concentrate 10X, (dilute 1 part plus 9 parts water to make TBS plus 0.05% TWEEN 20)

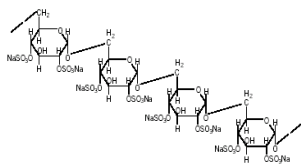
### **Researcher must provide:**

Pipettes  
Absorbance microplate reader  
Dextran sulfate standard  
Normal Saline (154mM NaCl)  
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 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 often be removed from the product. The K-3800 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-3800 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 the appropriate dextran sulfate standard using normal saline(154mM NaCl) to obtain standards of 0.003, 0.01, 0.03, 0.1, 0.3 and 1.0  $\mu\text{g}/\text{mL}$ . Standardization should be performed using dextran sulfate that is the same dextran sulfate type contained in your unknowns.

**Working Detector-Enzyme Conjugate:** Measure exactly **9.1 mL** of conjugate diluent and add to a clean tube. Perform a 'clean transfer' of the lyophilized Detector-Enzyme Conjugate into the 9.1 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.

