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For Investigational Use Only

Low Molecular Weight Heparin (LMWH) ELISA Kit  
for Buffer/Urine Samples

**Product No: K-1800**

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

**Kit includes:**

Heparin-coated 96-well plate  
LMWH (Sigma) Standard (10 µg/ml)  
Detector -Enzyme Conjugate vial  
Conjugate Diluent  
TMB Solution  
Stop Solution, 0.5M H<sub>2</sub>SO<sub>4</sub>  
Wash Concentrate 10X, (dilute 1 part plus 9 parts water to make TBS plus 0.05% TWEEN 20)  
Standard Diluent, TBS (150 mM NaCl, 10 mM Tris pH 7.5)

**Researcher must provide:**

Pipettes  
Absorbance microplate reader  
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**

Heparin is a glycosaminoglycan with alternating uronic acid and aminoglycoside units. It is an anticoagulant used either in its native unfractionated form (UFH) MW ~16 kD or in various partially depolymerized forms (LMWH) of 4-8 kD. The heparin-ELISA product number K-1800 is a quantitative enzyme-linked assay designed for the *in vitro* measurement of low molecular weight heparin levels in low protein content fluids such as buffer or urine. This assay measures heparin directly using a heparin binding protein which has been conjugated to HRP.

The heparin-ELISA is a competitive assay in which the colorimetric signal is inversely proportional to the amount of heparin present in the sample. Samples to be assayed are first mixed with the Detector-Enzyme Conjugate in wells of the heparin coated plate. Heparin in the sample competes with heparin bound to the plate for binding of the Detector-Enzyme Conjugate. The concentration of heparin in the sample is determined using a standard curve of known amounts of heparin.

