**REPRESENTATIVE DATASHEET**

Matched-Pair Antibody Set
For Neutralization of human Heparin Cofactor II (HCII) in Plasma

Sufficient reagent for 10 determinations

Product #: HCII-NU10
Lot #: XXXX
Expiry Date: XXXX

Store at 2 -8°C

1395 Sandhill Drive, Ancaster, Ontario, Canada L9G 4V5
905-304-9896 • 800-903-6020 • fax 905-304-9897

For Research Use Only
Not for use in diagnostic procedures.

Description of Heparin Cofactor II

Heparin Cofactor II (HCII), also known as heparin cofactor A and dermatan sulphate cofactor, is a single chain glycoprotein produced in the liver and circulates in plasma at concentration of 50-100 µg/ml (0.8-1.5 µM). A member of the SERPIN family of proteinase inhibitors, HCII exhibits a relatively narrow specificity and is only known to inhibit the serine proteinases thrombin and chymotrypsin. The inhibitory activity toward thrombin is accelerated up to 1000-fold in the presence of optimal concentrations of heparin. Unlike Antithrombin, thrombin inhibition by HCII is also enhanced by dermatan sulphate. HCII has an apparent molecular weight of 65,600 daltons and interaction with thrombin results in a covalent 1:1 enzyme-inhibitor complex of 102,600 daltons 1-3.

Principle of HCII Neutralization

Polyclonal sheep antibody to human HCII is added directly to human plasma and allowed to incubate for 20 minutes. During this time the antibody will bind to and inactivate (neutralize) the ability of HCII to inhibit thrombin in the presence of dermatan sulphate. Clot-based tests can then be performed on the neutralized sample. To control for the addition of antibody volume and buffer, a control antibody (non-immune sheep IgG, at the same concentration and in the same buffer) is added separately to a duplicate sample and the test is repeated.

References:

Documents OPI0190, rev 1