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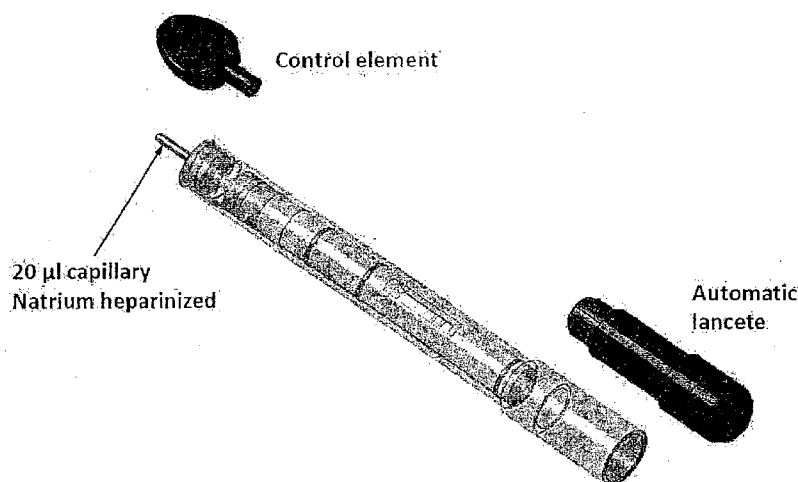


FIG. 23

(57) Abstract: A membrane-based assay device, methods and kits for determining the presence or quantity of an analyte in a test sample are provided. The immunochromatographic device comprises a membrane having a capture antibody bound thereto at a test zone, wherein the capture antibody is capable of binding with an analyte, in particular a Z-AAT protein present in a sample from a PiZ gene carrier.