

### Appendix 1

The immunoturbidimetric method used monospecific polyclonal sheep antisera against  $\alpha$ 1-AGP conjugated to latex particles (200nm). Serum reference fluid DA470k containing 617 mg/L  $\alpha$ 1-AGP was used as a calibrator. Assay run time was 10 minutes and had a measuring range of 0.077 to 148.2 mg/L. Values below the lower limit of detection were assumed at 0.08 mg/L with relative excretion rates calculated in accordance with this value. Urine samples were recorded at neat, and at 1/5 and 1/30 dilutions with  $\alpha$ 1-AGP detected in 98% of neat urine samples and 20% requiring dilution. The immunoturbidimetric assay was more sensitive than the previously published radioimmunoassay (RIA) method to analyse urinary  $\alpha$ 1-AGP<sup>7</sup>. Consistent with additional comparisons between analytical methods, the assay yielded values that were, on average, 0.55mg/L greater than those produced using RID<sup>28,29</sup>, albeit not significantly different ( $p=0.50$ ).