Osteocalcin is noncollagenous protein of bone, and has attract the attention for marker of bone turnover. The measurement of serum osteocalcin established by Price et al. This time, we got Osteocalcin RIA kit that CIS developed, and investigated fundamental tests. This kit is RIA kit based on double antibody method and consists of 1-125 osteocalcin, antibody, standards, 2nd antibody(PR Reagent) and control serum.

Result of incubation test, it got to plateau about 16 hours for first incubation, 5 minutes for second incubation at 2-8°C. Coefficient of variation for intra and inter-assay were 1.2 - 3.2 % and 1.6 - 3.5 % on standards, and 3.4 - 4.7 % and 2.1 - 3.8 % on three kinds of control serum. We obtained satisfactory results on recovery test and dilution test. Sufficient results were obtained in basic investigation of this kit, so this kit can be useful for clinical investigation in the future.

Additionally, the SIEMENS MR can perform several other operations; some possible applications include MR-Angiography (which extracts vessels), Tissue Characterization (which differentiates between normal, benign and malignant tissue), and Chemical Shift Imaging (which separates fat and water).

Na-23 images have already been taken in Japan, using the University of Tokyo's SIEMENS MAGNETOM.

An application of proton imaging, Na imaging, P-31, P-19 and C-13 spectroscopy will be demonstrated using the MAGNETOM.