



**Paediatric Research Centre
Coeliac Disease Study Group**

Immunological markers of coeliac disease latency

The Coeliac Disease Study Group, University of Tampere, Finland, provides as a service a staining of frozen small bowel biopsy specimens using four different monoclonal antibodies (CD3 positive T cells, alpha-beta T cell receptor bearing lymphocytes, gamma-delta T cell receptor bearing lymphocytes, expression of HLA-DR). The statement includes evaluation of the DR expression and the intraepithelial densities (cells/mm epithelium) of the different T cells. Aberrant upregulation of the class II molecule indicates inflammation, increased T cell densities intraepithelial infiltrativity. Increased densities of gamma-delta T cells are often seen in coeliac disease, developing, active and treated. The intraepithelial density of alpha-beta T cells react in coeliac disease fast on ingested gluten, gamma-delta T cells very slow. The sum of alpha-beta and gamma-delta T cell densities forms an internal staining control, the sum should be in the order of the density of all T cells (CD3).

The price is Euro 152.

Kaija Laurila, M.Sc. is in charge of the Coeliac Service Lab (phone +358 3 2158401 or +358 3 2158412, fax +358 3 2158402, email kaija.laurila@uta.fi).

Please inform beforehand the Coeliac Service Lab when biopsies are sent (phone +358 3 2158412, office times)

Handling of the biopsy specimen

The biopsy specimen should be freshly embedded in OCT-compound (Sakura Finetek Europe, B.V., Zoeterwoude, The Netherlands) and frozen in liquid nitrogen (or dry ice) as follows: Put a drop of OCT on aluminium foil and freeze it briefly in liquid nitrogen. Put the biopsy specimen on the partly frozen OCT and a new drop of OCT on the biopsy and freeze again. Thus the fresh biopsy specimen is completely covered with frozen OCT. The specimen should not be frozen separately. Close the biopsy specimen in a small plastic bag to prevent it from drying during the storage at -20 C or -70 C (is stored for longer periods).

Sending of the biopsy specimen

The specimen prepared as above should be packed in dry ice. Please ensure that the specimen will not melt during the delivery, nor should it be crushed. Send the specimen by courier mail to

Coeliac Service Lab, FM3, floor 3
Medical School, University of Tampere
Lenkkeilijänkatu 10
FIN-33520 Tampere, Finland