

## The Serum Ig Level in Human Twins

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The serum levels in different subjects of the classes and subclasses of Ig are considerably variable. The influence of the environmental factors on Ig concentration is well documented; however, direct data on the influence of genetic factors are lacking.

To this aim, the Ig serum levels were determined in 45 pairs of MZ and 30 pairs of DZ twins. The quantitative evaluation concerned the different classes (IgG, IgA, IgM), subclasses ( $\gamma G_1$ ,  $\gamma G_2$ ,  $\gamma G_3$ ,  $\gamma G_4$ ) and types (k and  $\lambda$ ), and was performed by the method of single radial diffusion.

The F ratio of variances between and within pairs is highly significant (0.001) for MZ twins, which are clearly concordant for high or low levels of all molecular classes. The comparison between and within pairs is also significant for DZ twins, albeit to a lower degree. Actually for H chains, the concordance is significantly higher for MZ than DZ. On the contrary, both kinds of twins are equally concordant for L chain levels.

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