

# Antibody class switching

**Isotype switching** (or *class switch*) arises:

1. IgH gene complex after V-D-J rearrangement,
  2. cleavage of a loop between two rearrangement sequences before C $\mu$  and some other C gene segment,
  3. gene complex after cleavage of part of the C-region,
  4. by transcription into RNA and splicing of the primary transcript mRNA encoding a certain immunoglobulin isotype is generated,
- rearrangements can take place sequentially as long as there is something to eliminate,
  - what rearrangement occurs is regulated by cytokines,
  - **IL-4** stimulates the production of IgE, IgG1, inhibits IgG2,
  - **IFN- $\gamma$** , **TGF- $\beta$** .

## Links

### Related articles

- Genetics of Ig, B and T receptors
- Immune defense against multicellular parasites

### Bibliography

- HOŘEJŠÍ, Václav – BARTŮŇKOVÁ, Jiřina. *Základy imunologie*. 3. edition. Praha : Triton, 2008. 280 pp. ISBN 80-7254-686-4.