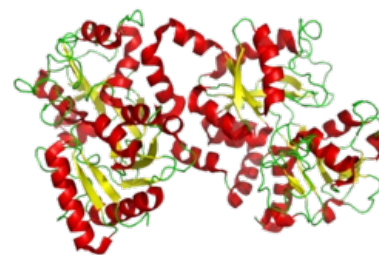


Lactoferrin

Lactoferrin is a transport glycoprotein present in e.g. saliva, milk or tears. It is also produced by neutrophil leukocytes. It **binds free iron** in the body, thereby reducing its plasma level together with transferrin. **Uptake of iron** from ingested food already in saliva is an important non-specific immune mechanism, as it prevents the overgrowth of bacteria that use free iron as a growth factor. In addition, the cationic N-terminus of the molecule is able to directly damage the bacterial membrane. Lactoferrin penetrates into the cells of the intestinal mucosa using receptors mediating endocytosis. Each molecule is able to bind two iron ions, however, it is never fully occupied in the organism.

The highest concentration of lactoferrin is in colostrum, its concentration decreases in breast milk. The amount of lactoferrin in secretions increases during inflammatory processes. It is used in the treatment of chronic hepatitis C and in the overgrowth of *Helicobacter pylori*.



Scheme of lactoferrin

Links

Related Articles

- Saliva
- Breast feeding
- Non-specific immunity
- Iron

External links

- English Wikipedia (<https://en.wikipedia.org/wiki/Lactoferrin>)
- Lactoferrin as an immunomodulating protein – edukafarm (<http://www.edukafarm.cz/data/soubory/casopysy/5/046-047.pdf>)

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