

# Intrinsic factor

**Intrinsic factor** is a glycoprotein produced by the parietal cells of the gastric glands. It is necessary for the absorption of vitamin B<sub>12</sub> (cobalamin), but in the acidic environment of the stomach it has a very low affinity for it. In the alkaline environment of the duodenum, cobalamin readily binds to intrinsic factor. The entire complex (vitamin B<sub>12</sub> and intrinsic factor), which is highly resistant to enzymatic degradation, is absorbed mainly in the ileum. It first binds to specific enterocyte receptors and then the entire complex is resorbed into the cell. Vitamin B<sub>12</sub> alone cannot bind to the receptor. Intracellularly, cobalamin is released from binding to intrinsic factor. Then vitamin B<sub>12</sub> is released into the blood, where it is transported bound to the transcobalamin protein.

Insufficient secretion of intrinsic factor causes a deficiency of vitamin B<sub>12</sub> in the body, leading to pernicious (megaloblastic) anemia.

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### Source

- ŠVÍGLEROVÁ, Jitka. *Intrinsic factor* [online]. [cit. 13.11.2010]. <[https://web.archive.org/web/20160306065550/http://wiki.lfp-studium.cz/index.php/Vnitřní\\_faktor](https://web.archive.org/web/20160306065550/http://wiki.lfp-studium.cz/index.php/Vnitřní_faktor)>.