

# Amylin

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Primary structure of IAPP. **Amylin** or **IAPP** (islet amyloid polypeptide) is hormone synthesized in pancreatic  $\beta$  cells and secreted together with insulin. Both synthesis and secretion are regulated the same way as the synthesis and secretion of insulin, but amylin is present at much lower concentrations. Its purpose and function are similar to that of insulin, although IAPP seems to have a bigger effect on the central nervous system by reducing appetite. Attempts are being made to use this function therapeutically, for example by developing analogues of IAPP.

The physical-chemical properties of IAPP as a protein allow it to form into amyloid - badly soluble fibrils resistant to degradation. It is thought that long-term excessive stimulation of pancreatic  $\beta$  cells may lead to amyloid deposits in islets of Langerhans that can reduce insulin production at late stages of T2DM.

## Links

### Related articles

- Insulin
- Type 2 diabetes mellitus

### Sources

- AKTER, R. – CAO, P. – NOOR, H., et al. Islet Amyloid Polypeptide: Structure, Function, and Pathophysiology. *J Diabetes Res* [online]. 2016, vol. 2016, p. 2798269, Available from <<https://www.hindawi.com/journals/jdr/2016/2798269/>>. ISSN 2314-6753.
- MUKHERJEE, A. – MORALES-SCHEIHING, D. – BUTLER, P. C.. Type 2 diabetes as a protein misfolding disease. *Trends Mol Med* [online]. 2015, vol. 21, no. 7, p. 439-49, Available from <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492843/>>. ISSN 1471-499X.
- CAO, P. – MAREK, P. – NOOR, H.. Islet amyloid: from fundamental biophysics to mechanisms of cytotoxicity. *FEBS Lett* [online]. 2013, vol. 587, no. 8, p. 1106-18, Available from <<http://onlinelibrary.wiley.com/action/cookieAbsent>>. ISSN 1873-3468.