

Product Information

Anti-Islet Amyloid Polypeptide (IAPP) (Internal)

produced in rabbit, IgG fraction of antiserum

Catalog Number **SAB4200627**

Product Description

Anti-IAPP (internal) is produced in rabbit using as immunogen a synthetic peptide corresponding to an internal sequence of human pro-IAPP (GeneID 3375), conjugated to KLH. Whole antiserum is purified using protein A immobilized on agarose to provide the IgG fraction of antiserum.

Anti-IAPP (internal) specifically recognizes human IAPP. The antibody can be used in several immunochemical techniques including immunohistochemistry. Detection of the IAPP signal by immunohistochemistry is specifically inhibited by the immunizing peptide.

Islet amyloid polypeptide (IAPP, amylin), is a 37-residue peptide hormone co-secreted with insulin from the pancreatic β -cells. IAPP/Amylin plays a role in glycemic regulation by slowing gastric emptying and promoting satiety, thereby preventing post-prandial spikes in blood glucose levels. IAPP is processed from an 89-amino acid precursor pro-islet amyloid polypeptide (proIAPP) in pancreatic β -cells. ProIAPP undergoes complex post-translational modifications including protease cleavage, C-terminal amidation and formation of an intramolecular disulfide bridge to produce the mature IAPP. IAPP has been linked to type 2 diabetes (T2DM) and the loss of islet β -cells. Islet amyloid formation, initiated by the aggregation of IAPP, may contribute to the progressive loss of islet β -cells. Amyloid deposits deriving from IAPP are commonly found in pancreatic islets of patients suffering of T2DM, or containing an insulinoma cancer. IAPP, like β -amyloid peptide associated with Alzheimer's disease, can induce apoptosis in insulin-producing β -cells, an effect that is relevant to the development of type 2 diabetes. The human IAPP (20-29) region that has been found to be essential to amyloid formation is thought to be a key factor in the initiation of amyloid aggregation.¹⁻⁴

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody Concentration: ~1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunohistochemistry: a working dilution of 1:500-1:1,000 is recommended using formalin-fixed paraffin-embedded human pancreas.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

1. Westermark, P., et al., *Physiol. Rev.*, **91**, 795-826 (2011).
2. Pillay, K., and Govender, P., *Biomed. Res. Int.*, **2013**, 826706 (2013).
3. Jayasinghe, S.A., and Langen, R., *Biochim. Biophys. Acta*, **1768**, 2002-2009 (2007).
4. Cao, P., et al., *Curr. Opin. Struct. Biol.*, **23**, 82-89 (2013).

GG, AI, PHC 02/16-1