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Product Information

Anti-IAPP
produced in rabbit, affinity isolated antibody

Catalog Number **SAB4200493**

Product Description

Anti-IAPP is produced in rabbit using as immunogen a synthetic peptide corresponding to a sequence at the C-terminus of rat pro-IAPP (GeneID 24476), conjugated to KLH. The corresponding sequence is identical in mouse IAPP and has 74% sequence identity with human IAPP. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-IAPP specifically recognizes human and rat IAPP. The antibody can be used in several immunochemical techniques including immunohistochemistry and immunofluorescence. Detection of the IAPP staining by immunohistochemistry is specifically inhibited by the IAPP 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 that 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 this 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.

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 Material 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 concentration of 5-10 µg/mL is recommended using formalin-fixed paraffin-embedded human pancreas.

Immunofluorescence: a working concentration of 1-2 µg/mL is recommended using rat insulinoma RIN-5F cells.

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

References

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3. Marutsuka, K., et al., *Hypertens. Res.*, **26**, S33-S40 (2003).
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ER,KCP,PHC 09/12-1