

#### RayBiotech, Inc.

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# Certificate of Analysis and Data Sheet

# **MOUSE ANTI HUMAN AMYLIN PEPTIDE (aa29-37)**

With HRP-conjugated secondary antibody

| Catalog No. | Species: | Isotype:   |
|-------------|----------|------------|
| DS-MB-00075 | Human    | Mouse IgG1 |

### Description

Adrenomedullin (AM), alpha- and beta-calcitonin gene-related peptide (CGRP), calcitonin (CT), and amylin are homologous polypeptides with overlapping biological actions such as vasodilatation and inhibition of bone resorption. Amylin (Islet/insulinoma amyloid polypeptide or IAPP) is a 37- amino acid monomeric polypeptide isolated from pancreatic amyloid. This protein, with a calculated molecular mass of 4 kDa, is a major component of amyloid-rich pancreatic extracts of three type 2 diabetic patients. IAPP has cysteine residues in positions 2 and 7, a feature found in all known calcitonin generelated peptides. IAPP shows 46% amino acid sequence homology with CGRP II. Since IAPP has been demonstrated immunochemically in normal beta cells of several mammals, it probably has an important role in respect to pancreatic islet function. The gene which encodes amylin maps to human chromosome 12p12.3-p12.1.

### **Applications**

Table Summary of antibody applications and working conditions

| Options Functions          | YES | NO | Not determined | Recommended<br>Work dilution or<br>concentration |
|----------------------------|-----|----|----------------|--|
| ELISA                      |     |    | •              |  |
| Western Blotting           |     |    | •              |  |
| Immunohistology - frozen   | •   |    |                | 1/100*   |
| Immunohistology - paraffin | •   |    |                | 1/100*   |
| Immunohistology - resin    |     |    | •              |  |
| Immunoprecipitation        |     |    | •              |  |
| Flow Cytometry             |     |    | •              |  |
| Immunofluorence staining   |     |    | •              |  |
| Neutralization             |     |    | •              |  |

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application. \*This product does not require protein digestion pre-treatment of paraffin sections. This product does not require antigen retrieval using heat treatment prior to staining of paraffin sections.



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### Preparation

Immunogen was CATQRLANFLV coupled to tuberculin. This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with the immunogen.

# Specificity

DS-MB-00075 recognizes the islet amyloid polypeptide. The antibody is of high affinity, and stains islet amyloid peptide in intra-cellular insulin granules, intra-cellular amyloid and extra-cellular islet amyloid.

#### Reconstitution

Supplied as 2ml of tissue culture supernatant-liquid. Please avoid freeze-thaw cycles.

# Secondary Antibody Applications

| Options Functions                    | YES | NO | Not determined | Recommended<br>Work dilution or<br>concentration |
|--------------------------------------|-----|----|----------------|--|
| Immunoassay (ELISA,<br>Western blot) | •   |    |                | 1:5000-1:10000                                   |

### Storage

Store at  $-20^{\circ}$ C, if not intended for use within a month. Keep it at  $4^{\circ}$ C and minimize freezing and thawing when use.

### Reference

Gong, W. (2007) Amylin deposition in the kidney of patients with diabetic nephropathy. Kidney Int. 72: 213-218.