

# A method for the purification of single A, B and D cells and cells from isolated rat islets

Diabetologia

20, 654-63

DOI: [10.1007/bf00257436](https://doi.org/10.1007/bf00257436)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Determinants of the selective toxicity of alloxan to the pancreatic B cell.. Proceedings of the National Academy of Sciences of the United States of America, 1982, 79, 927-930.	3.3	271
2	Glucose-induced insulin release depends on functional cooperation between islet cells.. Proceedings of the National Academy of Sciences of the United States of America, 1982, 79, 7322-7325.	3.3	222
3	Selective uptake of alloxan by pancreatic B-cells. Biochemical Journal, 1982, 208, 513-515.	3.2	77
4	6 Islet cell antibodies in diabetes. Clinics in Endocrinology and Metabolism, 1982, 11, 409-430.	1.8	22
5	Islet cell analysis and purification by light scatter and autofluorescence. Biochemical and Biophysical Research Communications, 1982, 107, 525-532.	1.0	104
6	Islet Cell Surface Antibodies from Insulin-dependent Diabetics Bind Specifically to Pancreatic B Cells. Journal of Clinical Investigation, 1982, 70, 41-49.	3.9	95
7	The glycolytic cascade in pancreatic islets. Diabetologia, 1982, 23, 1-5.	2.9	33
8	Pancreatic islet cell suspensions from newborn rats; different preparation procedures, viability and (pro)insulin biosynthesis. Experientia, 1983, 39, 210-212.	1.2	1
9	Characterization of pseudo-islets formed from pancreatic islet cell suspensions of neonatal rats. Molecular and Cellular Endocrinology, 1983, 32, 179-193.	1.6	9
10	Autofluorescence-activated cell sorting of pancreatic islet cells: Purification of insulin-containing B-cells according to glucose-induced changes in cellular redox state. Biochemical and Biophysical Research Communications, 1983, 114, 835-842.	1.0	102
11	Hormone Release by Islet B Cell-Enriched and A and D Cell-Enriched Populations Prepared by Flow Cytometry*. Endocrinology, 1983, 113, 1791-1798.	1.4	17
12	Effects of Glucose and 3â€²,5â€²-Cyclic Adenosine Monophosphate upon Reaggregation of Single Pancreatic B-Cells*. Endocrinology, 1984, 114, 2205-2209.	1.4	31
13	Glucose metabolism in murine fetal cortical brain cells: Lack of insulin effects. Journal of Cellular Physiology, 1984, 121, 45-50.	2.0	17
14	Purification of beta cells from rat islets by monoclonal antibody-fluorescence flow cytometry. Cytometry, 1984, 5, 539-542.	1.8	10
15	Islet cell interactons with pancreatic B-cells. Experientia, 1984, 40, 1114-1126.	1.2	44
16	Dispersed adult rat pancreatic islet cells in culture: A, B, and D cell function. Metabolism: Clinical and Experimental, 1984, 33, 447-453.	1.5	42
17	Effects of glucose and glucagon on the fructose 2,6-bisphosphate content of pancreatic islets and purified pancreatic B-cells. A comparison with isolated hepatocytes. Biochemical Journal, 1984, 221, 759-764.	1.7	42
18	Divergent effect of glucagon antibodies on arginine and glucose-stimulated insulin secretion in the rat. Diabetologia, 1985, 28, 441-444.	2.9	14

#	ARTICLE	IF	CITATIONS
19	Prediction of type 1 diabetes mellitusâ€”a report on three cases. <i>European Journal of Pediatrics</i> , 1985, 143, 175-178.	1.3	4
20	High-conductance K <sup>+</sup> channel in pancreatic islet cells can be activated and inactivated by internal calcium. <i>Journal of Membrane Biology</i> , 1985, 83, 169-175.	1.0	143
21	A New in Vitro Model for the Study of Pancreatic A and B Cells*. <i>Endocrinology</i> , 1985, 117, 806-816.	1.4	356
22	Interplay of Nutrients and Hormones in the Regulation of Insulin Release*. <i>Endocrinology</i> , 1985, 117, 824-833.	1.4	296
23	Alloxan toxicity in human and canine spermatozoa. <i>Biochemical Pharmacology</i> , 1986, 35, 1725-1729.	2.0	6
24	Selective complement fixation by pancreatic B-cells after binding to islet cell surface antibodies. <i>Journal of Endocrinological Investigation</i> , 1986, 9, 43-49.	1.8	5
25	The capability for regulation of insulin secretion by somatostatin in purified pancreatic islet B cells during aging. <i>Mechanisms of Ageing and Development</i> , 1986, 33, 139-146.	2.2	12
26	Pancreatic B cells possess defense mechanisms against cell-specific toxicity.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1986, 83, 5267-5271.	3.3	105
27	Glucose metabolism in human spermatozoa: Lack of insulin effects and dissociation from alloxan handling. <i>Journal of Cellular Physiology</i> , 1986, 127, 261-266.	2.0	11
28	A technique for the isolation of highly viable pancreatic B-cells from ob/ob mice. <i>Acta Diabetologica Latina</i> , 1986, 23, 43-49.	0.2	1
29	The biosociology of pancreatic B cells. <i>Diabetologia</i> , 1987, 30, 277-291.	2.9	166
30	Rapid in vitro formation of smooth endoplasmic reticulum aggregates within peptide-producing islet cells. <i>Journal of Cellular Physiology</i> , 1987, 133, 111-118.	2.0	1
31	Isolated cells in suspension for biological research â€” Part II. Structure and functional properties of cells from pancreatic islets and acini. <i>Experimental Pathology</i> , 1988, 34, 1-22.	0.5	1
32	Glucose stimulates proinsulin biosynthesis by a dose-dependent recruitment of pancreatic beta cells.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988, 85, 3865-3869.	3.3	300
33	Culture of pancreatic islet cells and islet hormone producing cell lines â€” morphological and functional integrity in cultureâ€” In <i>Vitro Cellular &amp; Developmental Biology</i> , 1989, 25, 763-769.	1.0	1
34	Sensitivity of rat pancreatic A and B cells to somatostatin. <i>Diabetologia</i> , 1989, 32, 207-212.	2.9	90
35	Cell surface antibodies in Type 1 (insulin-dependent) diabetic patients. <i>Diabetologia</i> , 1989, 32, 611-617.	2.9	14
36	Cell surface antibodies in Type 1 (insulin-dependent) diabetic patients. <i>Diabetologia</i> , 1989, 32, 618-623.	2.9	6

#	ARTICLE	IF	CITATIONS
37	[23] Cell separation by elutriation: Major and minor cell types from complex tissues. <i>Methods in Enzymology</i> , 1989, 171, 482-497.	0.4	11
38	[13] Isolation of pancreatic islets and primary culture of the intact microorgans or of dispersed islet cells. <i>Methods in Enzymology</i> , 1990, 192, 188-223.	0.4	57
39	Effect of rioprostil, a methylprostaglandin E1 analog, on basal and stimulated plasma pancreatic hormone levels in man. <i>Digestive Diseases and Sciences</i> , 1990, 35, 20-26.	1.1	2
40	Direct effect of insulin and insulin-like growth factor-I on the secretory activity of rat pancreatic beta cells. <i>Diabetologia</i> , 1990, 33, 649-653.	2.9	78
41	A2B5-Reactive Ganglioside Expression Is an Index of Differentiation in Rat Insulinoma (RIN) Cells*. <i>Endocrinology</i> , 1990, 126, 1927-1933.	1.4	6
42	Protection of B cells against the effect of alloxan. <i>Toxicology Letters</i> , 1992, 63, 155-164.	0.4	15
43	Effect of the hypoglycaemic drug (α)-AZAEDF265 on ATP-sensitive potassium channels in rat pancreatic β-cells. <i>British Journal of Pharmacology</i> , 1992, 106, 250-255.	2.7	15
44	Why pancreatic islets burst but single beta cells do not. The heterogeneity hypothesis. <i>Biophysical Journal</i> , 1993, 64, 1668-1680.	0.2	160
45	Nitric oxide opens ATP-sensitive K <sup>+</sup> channels through suppression of phosphofructokinase activity and inhibits glucose-induced insulin release in pancreatic beta cells.. <i>Journal of General Physiology</i> , 1994, 104, 1079-1098.	0.9	81
46	Reduced sensitivity of dihydroxyacetone on ATP-sensitive K <sup>+</sup> channels of pancreatic beta cells in GK rats. <i>Diabetologia</i> , 1994, 37, 1082-1087.	2.9	28
47	Molecular and cellular characterization of the GABAA receptor in the rat pancreas. <i>Molecular and Cellular Endocrinology</i> , 1994, 103, 157-163.	1.6	30
48	Low Density Lipoprotein Binding and Uptake by Human and Rat Islet <sup>β</sup> Cells*. <i>Endocrinology</i> , 1997, 138, 4064-4068.	1.4	67
49	The Determination of Membrane Permeability Coefficients of Canine Pancreatic Islet Cells and Their Application to Islet Cryopreservation. <i>Cryobiology</i> , 1997, 35, 1-13.	0.3	48
50	Oscillatory Ca <sup>2+</sup> signaling in somatostatin-producing cells from the human pancreas. <i>Metabolism: Clinical and Experimental</i> , 1997, 46, 366-369.	1.5	10
51	A prospective comparison of discontinuous EuroFicoll and EuroDextran gradients for islet purification. <i>Cell Transplantation</i> , 1998, 7, 479-487.	1.2	10
52	L-Type and Dihydropyridine-Resistant Calcium Channel Trigger Exocytosis with Similar Efficacy in Single Rat Pancreatic <sup>β</sup> Cells. <i>Biochemical and Biophysical Research Communications</i> , 1998, 243, 878-884.	1.0	7
53	A Prospective Comparison of Discontinuous Euroficoll and Eurodextran Gradients for Islet Purification. <i>Cell Transplantation</i> , 1998, 7, 479-487.	1.2	9
54	Cellular Origin of Hexokinase in Pancreatic Islets. <i>Journal of Biological Chemistry</i> , 1999, 274, 32803-32809.	1.6	52

#	ARTICLE	IF	CITATIONS
55	Unbiased estimation of total $\beta$ -cell number and mean $\beta$ -cell volume in rodent pancreas. <i>Apmis</i> , 1999, 107, 791-799.	0.9	42
56	A Distinct Ganglioside Composition of Rat Pancreatic Islets. <i>Archives of Biochemistry and Biophysics</i> , 2000, 376, 371-376.	1.4	14
57	Improved yield and functionality of parathyroid cells separated by using collagenase-digestion with cold pre-incubation. <i>Journal of Endocrinological Investigation</i> , 2001, 24, 98-103.	1.8	4
58	Osmotic and Cryoprotectant Permeation Characteristics of Islet Cells Isolated from the Newborn Pig Pancreas. <i>Cell Transplantation</i> , 2001, 10, 651-659.	1.2	21
59	Chronic exposure to free fatty acids or high glucose induces apoptosis in rat pancreatic islets: Possible role of oxidative stress. <i>Metabolism: Clinical and Experimental</i> , 2002, 51, 1340-1347.	1.5	221
60	Technical aspects of islet preparation and transplantation. <i>Transplant International</i> , 2003, 16, 613-632.	0.8	89
61	Purification of Rat Pancreatic $\beta$ -Cells by Fluorescence-Activated Cell Sorting. , 2003, 83, 015-022.		12
62	Comparison of Fetal Porcine Aggregates of Purified $\beta$ -Cells versus Islet-Like Cell Clusters as a Treatment of Diabetes. <i>Cell Transplantation</i> , 2004, 13, 525-534.	1.2	13
63	Expression of $K^{+}$ - $Cl^{-}$ cotransporters in the $\beta$ -cells of rat endocrine pancreas. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2004, 1667, 7-14.	1.4	28
64	Probe-Independent and Direct Quantification of Insulin mRNA and Growth Hormone mRNA in Enriched Cell Preparations. <i>Diabetes</i> , 2006, 55, 3214-3220.	0.3	52
65	The possible mechanisms by which phanoside stimulates insulin secretion from rat islets. <i>Journal of Endocrinology</i> , 2007, 192, 389-394.	1.2	41
66	Characterization of Islet Preparations. , 2007, , 85-133.		16
67	Isolation and purification of rat islet cells by flow cytometry. <i>Indian Journal of Clinical Biochemistry</i> , 2008, 23, 57-61.	0.9	8
68	Pancreatic Beta-Cell Purification by Altering FAD and NAD(P)H Metabolism. <i>Experimental Diabetes Research</i> , 2008, 2008, 1-11.	3.8	40
69	A Practical Guide to Rodent Islet Isolation and Assessment. <i>Biological Procedures Online</i> , 2009, 11, 3-31.	1.4	220
70	Somatostatin release, electrical activity, membrane currents and exocytosis in human pancreatic delta cells. <i>Diabetologia</i> , 2009, 52, 1566-1578.	2.9	81
71	Islet assessment for transplantation. <i>Current Opinion in Organ Transplantation</i> , 2009, 14, 674-682.	0.8	96
72	Quantitative analysis of cell composition and purity of human pancreatic islet preparations. <i>Laboratory Investigation</i> , 2010, 90, 1661-1675.	1.7	137

#	ARTICLE	IF	CITATIONS
73	Human Immune System Development and Rejection of Human Islet Allografts in Spontaneously Diabetic NOD- <i>Rag1</i> <sup>null</sup> <i>IL2r</i> <sup>β3</sup> <sup>null</sup> <i>Ins2Akita</i> Mice. <i>Diabetes</i> , 2010, 59, 2265-2270.	0.3	68
74	Characteristics and Functions of $\hat{1}$ -Amino-3-Hydroxy-5-Methyl-4-Isoxazolepropionate Receptors Expressed in Mouse Pancreatic $\hat{1}$ -Cells. <i>Endocrinology</i> , 2010, 151, 1541-1550.	1.4	29
75	Quantitative Assessment of Islets of Langerhans Encapsulated in Alginate. <i>Tissue Engineering - Part C: Methods</i> , 2011, 17, 435-449.	1.1	58
76	Iddm30 Controls Pancreatic Expression of <i>Ccl11</i> (Eotaxin) and the Th1/Th2 Balance within the Insulitic Lesions. <i>Journal of Immunology</i> , 2014, 192, 3645-3653.	0.4	6
77	Immunoisolated Transplantation of Purified Langerhans Islet Cells in Testis Cortex of Male Rats for Treatment of Streptozotocin Induced Diabetes Mellitus. <i>Indian Journal of Clinical Biochemistry</i> , 2014, 29, 406-417.	0.9	3
78	Potent Insulin Secretagogue from <i>Scoparia dulcis</i> Linn of Nepalese Origin. <i>Phytotherapy Research</i> , 2015, 29, 1672-1675.	2.8	21
79	Purification of replicating pancreatic $\hat{2}$ -cells for gene expression studies. <i>Scientific Reports</i> , 2017, 7, 17515.	1.6	3
80	Discrimination of Single Living Rat Pancreatic $\hat{1}$ , $\hat{2}$ , $\hat{1}$ , and Pancreatic Polypeptide (PP) Cells Using Raman Spectroscopy. <i>Applied Spectroscopy</i> , 2018, 72, 706-714.	1.2	3
81	Discordance between <i>GLP-1R</i> gene and protein expression in mouse pancreatic islet cells. <i>Journal of Biological Chemistry</i> , 2020, 295, 11529-11541.	1.6	25
82	The Pathology of Type I (Juvenile) Diabetes. , 1985, , 337-365.		13
83	Growth Pattern of Pancreatic Islets in Animals. , 1985, , 53-79.		43
84	Perspectives of Islet Cell Transplantation in Diabetes. , 1988, , 310-328.		2
85	Death of the Pancreatic B-Cell. , 1988, , 106-124.		5
86	Reduced sensitivity of dihydroxyacetone on ATP-sensitive K <sup>+</sup> channels of pancreatic beta cells in GK rats. <i>Diabetologia</i> , 1994, 37, 1082-1087.	2.9	3
87	Technical aspects of islet preparation and transplantation. <i>Transplant International</i> , 2003, 16, 613-632.	0.8	41
88	Cellular Endogenous Fluorescence: A Basis for Preparing Subpopulations of Functionally Homogeneous Cells. , 1989, , 391-404.		5
89	Separation of Pancreatic Islet Cells according to Functional Characteristics. , 1987, , 119-140.		2
90	Differences in glucose handling by pancreatic A- and B-cells.. <i>Journal of Biological Chemistry</i> , 1984, 259, 1196-1200.	1.6	90

#	ARTICLE	IF	CITATIONS
91	Identification of glucose response proteins in two biological models of beta-cell adaptation to chronic high glucose exposure.. Journal of Biological Chemistry, 1992, 267, 1357-1366.	1.6	21
92	Cellular and subcellular localization of an Mr 64,000 protein autoantigen in insulin-dependent diabetes.. Journal of Biological Chemistry, 1990, 265, 376-381.	1.6	34
93	INTERLEUKIN-4 OR INTERLEUKIN-10 EXPRESSED FROM ADENOVIRUS-TRANSDUCED SYNGENEIC ISLET GRAFTS FAILS TO PREVENT ?? CELL DESTRUCTION IN DIABETIC NOD MICE1. Transplantation, 1997, 64, 1040-1049.	0.5	41
94	A ganglioside antigen on the rat pancreatic B cell surface identified by monoclonal antibody R2D6.. Journal of Clinical Investigation, 1984, 74, 25-38.	3.9	36
95	Differences in glucose recognition by individual rat pancreatic B cells are associated with intercellular differences in glucose-induced biosynthetic activity.. Journal of Clinical Investigation, 1992, 89, 117-125.	3.9	151
96	Large scale isolation, growth, and function of porcine neonatal islet cells.. Journal of Clinical Investigation, 1996, 97, 2119-2129.	3.9	335
97	Cadherin-mediated adhesion in pancreatic islet cells is modulated by a cell surface <i>N</i> -acetylgalactosaminylphosphotransferase. Journal of Cell Science, 1992, 103, 1235-1241.	1.2	20
98	MicroRNA Expression in Alpha and Beta Cells of Human Pancreatic Islets. PLoS ONE, 2013, 8, e55064.	1.1	123
99	Effects of metformin on oxidative stress, adenine nucleotides balance, and glucose-induced insulin release impaired by chronic free fatty acids exposure in rat pancreatic islets. Journal of Endocrinological Investigation, 2012, 35, 504-10.	1.8	21
100	Treatment of Streptozotocine Induced Diabetes Mellitus in Male Rats by Immunoisolated Transplantation of Purified Langerhans Islet Cells. Asian Journal of Biochemistry, 2006, 2, 31-41.	0.5	2
102	Circulating Signs of Autoimmune Islet Disease. , 1988, , 53-70.		1
103	Purification of Islets and Cells from Islets. , 1983, , 99-126.		2