

Supplemental Table 1

Primary antibodies:

Protein targeted	Applications	Host	Clone	Provider	Catalogue number
PKD1 (PKD1/2)	Western, IHC	Rabbit	C-20	SantaCruz (CA, USA)	SC-639
PKD1	Western	Rabbit	-	Cell Signaling (MA, USA)	2052
PKD2	Western	Rabbit	-	Upstate (NY, USA)	07-488
PKD2	Western	Rabbit	-	Calbiochem (CA, USA)	ST1042
PKD3	Western, IHC, IC, IP	Rabbit	-	Bethyl (TX, USA)	A300-319A
Phospho(Ser744/748)-PKD	Western	Rabbit	-	Cell Signaling (MA, USA)	2054
Phospho(Ser916)-PKD	Western	Rabbit	-	Cell Signaling (MA, USA)	2051
ERK1/2	Western	Rabbit	-	Cell Signaling (MA, USA)	9102
Phospho(Thr202/Tyr204)-ERK1/2	spho(Thr202/Tyr204)-ERK1/2	Western	Rabbit	Cell Signaling (MA, USA)	9101
Phospho(Ser380)-p90RSK	Western	Rabbit	-	Cell Signaling (MA, USA)	9335
VAMP2	IC	Rabbit	-	Abcam (MA, USA)	Ab3347
GM130	IC	Mouse		BD Biosciences (CA, USA)	610822
E-cadherin	IC	Mouse	-	BD Biosciences (CA, USA)	610181
α -Amylase	Western	Goat	C-20	SantaCruz (CA, USA)	SC-12821
Amylase	Western	Sheep	-	Abcam (MA, USA)	Ab8944
PDX-1	Western	Rabbit	-	Chemicon Int (USA)	AB3243
GAPDH	Western	Goat	V-18	SantaCruz (CA, USA)	SC-20357
β -actin	Western	Mouse	AC-15	Sigma-Aldrich (MO, USA)	A5441

IHC: Immunohistochemistry; **IC:** Immunocytochemistry; **IP:** Immunoprecipitation

Secondary antibodies:

Protein targeted	Host	Provider	Catalogue number
HRP-conjugated anti-mouse antibodies	Goat	Pierce (Illinois, USA)	31430
HRP-conjugated anti-rabbit antibodies	Goat	Pierce (Illinois, USA)	31460
Alexa Fluor 488 conjugated antibodies	Goat	Molecular Probes (Invitrogen, Basel, Switzerland)	A-11008
Alexa Fluor 568 conjugated antibodies	Goat	Molecular Probes (Invitrogen, Basel, Switzerland)	A-11011
Alexa Fluor 594 conjugated antibodies	Goat	Molecular Probes (Invitrogen, Basel, Switzerland)	A-11005
HRP-conjugated anti-goat antibodies	Rabbit	Pierce (Illinois, USA)	31402

Other reagents:

Name	Provider	Catalogue number
CCK-8	Bachem (CA, USA)	H-2080
BBS	Bachem (CA, USA)	H-2155
NT	Bachem (CA, USA)	H-4435
Carbachol	Sigma (MO, USA)	C2409
Gastrin I	Bachem (CA, USA)	H-3085
PMA	Sigma (MO, USA)	P-1585
Collagenase	Sigma (MO, USA)	C-1889, C-5138
Soybean trypsin inhibitor	Calbiochem (CA, USA)	65035
FuGene HD reagent	Roche (Basel, Switzerland)	04 709 705 001
Qiagen RNeasy kit	Qiagen (Basel, CH)	74404
ECL reagent	Amersham (Dübendorf, Switzerland)	RPN2135
A-sepharose beads	GE Healthcare (Uppsala, Sweden)	17-0780-01
G-sepharose beads	GE Healthcare (Uppsala, Sweden)	17-0618-01
BAPTA/AM	Sigma (MO, USA)	A1076
A23187	Alexis Biochemicals	450-001-M001
Ionomycin	Calbiochem (CA, USA)	407950
Thapsigargin	Sigma (MO, USA)	T9033
Akt inhibitor	Calbiochem (CA, USA)	124005
LY294002	Calbiochem (CA, USA)	440202
Wortmannin	Sigma (MO, USA)	W 1628
PD98059	Biomol (USA)	EI-360
U0126	Calbiochem (CA, USA)	662005
GF109203X	Sigma (MO, USA)	G-2911
Ro31-8220	Calbiochem (CA, USA)	557520
Adeno-X Rapid Titer kit	Clontech (CA, USA)	631028
Laminin I	Trevigen (MD, USA)	3400-010-01
Phadebas amylase test	Pharmacia (Uppsala, Sweden)	51-1396-173
Krebs-Hensleit buffer (in mM: 142 NaCl, 23.8 NaHCO ₃ , 4.83 KCl, 0.96 KH ₂ PO ₄ , 1.20 MgSO ₄ , 12.5 HEPES, 5 glucose, and 2.2 CaCl ₂ , pH 7.4).	Sigma (MO, USA)	K-3753

Supplemental Table 2

Gene	Primer sequence (5'→ 3') for conventional PCR	Accession Number
Mouse PKD1	S: CTC CAA TGT GTC CCT CAC TGG A AS: GGT CTG CAT CTG GAT CTT GCA T	NM_008857
Mouse PKD2	S: GCT CTC ACT GTG CAC TCG TAC C AS: TGA CAC CAG AAT CCT CCA ACT C	NM_178900
Mouse PKD3	S: ATC TGG CTA CCA GTA TCT CCG AS: CCG ACC ACA TGT CTA GAG AAC G	NM_029239

Gene	Primer set 1 sequence (5'→ 3') for real-time PCR	Accession Number
Mouse RatPKD1	S: GCT TTG CGA CAT CTT CAT TTT AAA AS: CAA AAC CAA AAT CAC AGA GCT TCA	NM_008857
Mouse PKD2	S: CTA CAG CGT GGA CAA GTC TCT CA AS: CCT CTA GCT CTC GGA GGT CAA G	NM_178900
Mouse PKD3	S: CGA AAA TGT GCT GCT GCT TGC A AS: GCG GGC AAA CCC AAA GT	NM_029239

Gene	Primer set 2 published sequence from Applied Bioscience, Inc. (5'→ 3') for real-time PCR	Assay ID
Mouse PKD1	S: AGATTCAGGAAAATGTGGATATCAG	Mm00435790_m1
Mouse PKD2	S: CATCTGGAGCCATCGACCTCATCAA	Mm00626821_m1
Mouse PKD3	S: ATCAGAAGTTTCCAGAGTGTGGATT	Mm00551422_m1

Gene	Primer published sequence from Applied Bioscience, Inc. (5'→ 3') for real-time PCR	Accession Number/ Assay ID
Rat PKD1	S: ATCTGGAGCCATCGACCTCATCAAC	NM_001013895.1/ Rn00626821_m1
Rat PKD2	S: CTTTCAATGGAGAGCCTTCCAGTGT	XM_001054495.1/ Rn01469586_m1
Rat PKD3	S: ACCCCTGGCTACAGGACTACCAGAC	XM_234108.4/ Rn01469119_m1

SUPPLEMENTAL FIGURE LEGENDS

Supplemental Fig 1. Expression pattern of PKD isoform in the rat pancreas. (A) Quantitative RT-PCR analysis of Sprague Dawley male rat pancreas using primers targeting PKD1-3 genes. Results represent the means \pm SE for triplicate assays. (B) Western blot analysis of PKD protein expression in rat whole pancreas and acini. Homogenized and sonicated whole rat pancreas and isolated acini were probed with anti-PKD antibodies on parallel blots. Anti-amylase and β -actin antibodies were used as loading controls. Similar expression patterns were observed in three separate animals.

Supplemental Fig 2. Localization of endogenous PKD3 in pancreatic acinar cells. Isolated mouse pancreatic acini were incubated with control media or media containing CCK (10 nM) for 5 min and then immunostained using antibodies against (A) PKD3 and VAMP2 or (B) PKD3 and GM130. Co-localization was qualitatively determined by overlap of green (PKD3) and red (VAMP2 or GM130) fluorescence. *Arrows*, translocation of PKD3 positive-staining