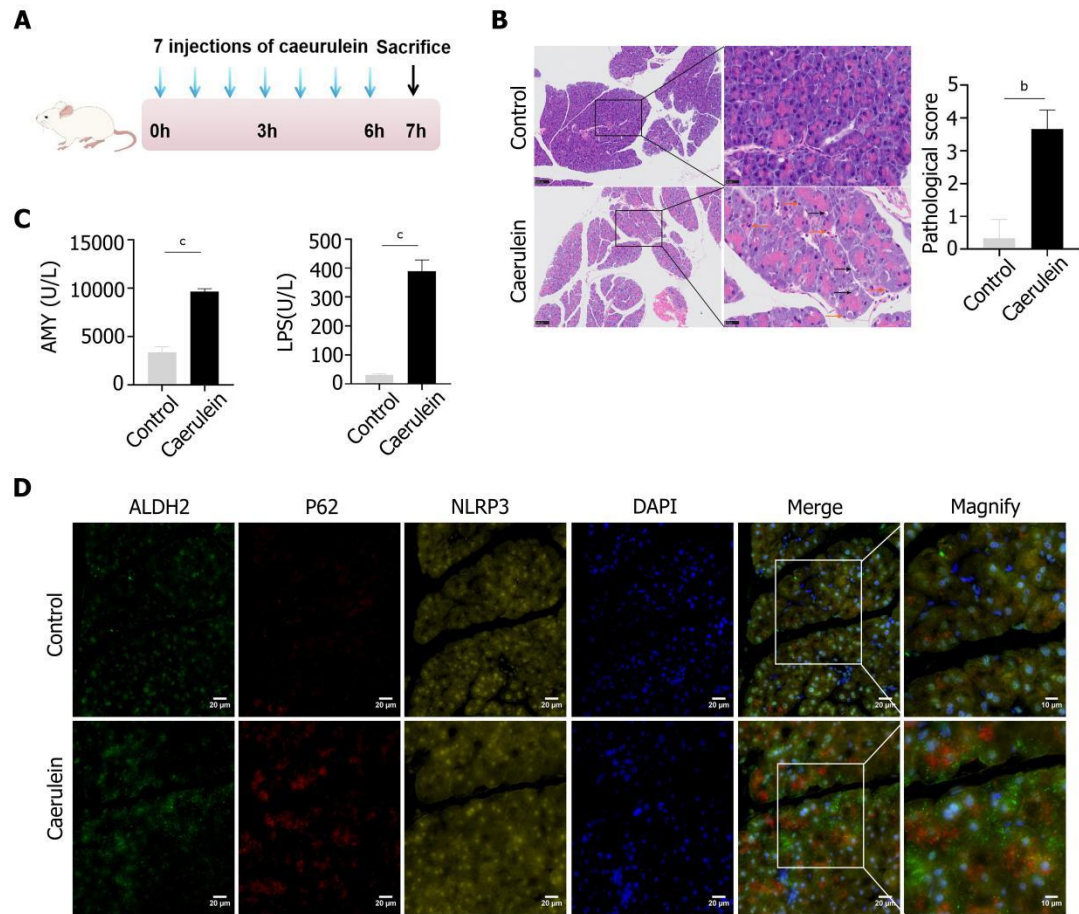




Supplementary Figure 1 Murine acute pancreatitis model establishment and immunofluorescence co-localization of related markers. A: Schematic representation; B: Representative hematoxylin and eosin staining images of murine pancreas and corresponding pathological score in caerulein group and control group (n=3 per group). Orange arrows denote inflammatory cells. Black arrows indicate vacuolization. Scale bar: 100 μ m, magnification, 25 μ m; C: Serum amylase and lipase levels in caerulein group and control group (n=3 per group); D: Immunofluorescence analysis of aldehyde dehydrogenase 2 (ALDH2, green), P62 (red) and nod-like receptor family pyrin domain-containing 3 (NLRP3, yellow) in pancreatic tissues of caerulein group

and control group. Scale bar: 20μm, magnification, 10μm. ^b*P*<0.01, ^c*P*<0.001.

AMY, amylase; LPS, lipase.

Supplementary Table 1 Histological scoring for murine acute pancreatitis model

		Edema	Inflammation	Vacuole	Necrosis	Total
Murine AP model	Control-1	0	0	0	0	0
	Control-2	1	0	0	0	1
	Control-3	0	0	0	0	0
	AP-1	2	1	1	0	4
	AP-2	2	1	1	0	4
	AP-3	1	1	1	0	3

AP, acute pancreatitis.

Supplementary Table 2 Histological scoring for porcine acute pancreatitis model

		Edema	Inflammation	Vacuole	Necrosis	Total
Porcine AP model	Control-1	0	0	0	0	0
	Control-2	0	0	0	0	0
	Control-3	0	1	0	0	1
	AP-1	3	1	1	0	5
	AP-2	2	3	1	0	6
	AP-3	2	2	1	0	5

AP, acute pancreatitis.

Supplementary Table 3 Histological scoring for murine acute pancreatitis model (Aldh2^{fl/fl}Cela1-Cre mice and Aldh2^{+/+} mice)

		Edema	Inflammation	Vacuole	Necrosis	Total
Murine AP model	Aldh2 ^{+/+} mice-1	1	2	1	0	4
	Aldh2 ^{+/+} mice-2	1	1	1	0	3
	Aldh2 ^{+/+} mice-3	1	1	1	0	3
	Aldh2 ^{fl/fl} Cela1-Cre mice-1	2	1	1	0	4
	Aldh2 ^{fl/fl} Cela1-Cre mice-2	3	1	1	0	5
	Aldh2 ^{fl/fl} Cela1-Cre mice-3	3	1	1	0	5

AP, acute pancreatitis.

Supplementary Table 4 Serological indicators in patients with and without post-endoscopic retrograde cholangiopancreatography pancreatitis

ID	Group	AMY (U/L)	LPS (U/L)	ALDH2(ng/ml)		NLRP3(ng/ml)		IL-18(pg/ml)		Δ ALDH2	Δ NLRP3	Δ IL-18
				pre- ERCP	post- ERCP	pre- ERCP	post- ERCP	pre- ERCP	post- ERCP			
1	Normal	62.1	35	22.09	21.35	5.92	4.04	134.08	130.76	-0.74	-1.87	-3.32
2	Normal	119.2	39.2	21.20	18.49	2.52	2.50	112.68	112.88	-2.71	-0.01	0.19
3	Normal	63.5	44.2	15.52	11.94	1.98	2.03	165.62	125.63	-3.58	0.06	-39.99
4	AP	1301.3	6128.2	40.76	45.61	5.81	8.48	200.05	227.45	4.85	2.67	27.40
5	AP	1956.9	4062.3	21.52	28.04	3.14	9.87	121.26	150.44	6.52	6.73	29.18
6	AP	220.8	699.9	10.33	30.64	4.91	10.84	190.86	293.62	20.31	5.93	102.76

ERCP, Endoscopic retrograde cholangiopancreatography; AMY, Amylase; LPS, Lipase; AP, Acute pancreatitis; ALDH2, Aldehyde dehydrogenase 2; NLRP3, NOD-like receptor family pyrin domain-containing 3; IL, Interleukin.