

**Table S1** PKM2 expression analysis from the 5 papers

Studies	Antibody	Protocol	Scoring system
Fukuda 2015, (10)	Proteintech Group, Campbell, USA (1:100)	EnVision	Intensity: 0, negative; 1, weak; 2, moderate; 3, strong. Percentage of positive cells: 0, negative; 1, 1–30% positive cells; 2, 31–60% positive cells; 3, 61–80% positive cells; 4, 81–100% positive cells. The score = staining intensity × percentage of cells stained. They qualified PKM2 expression as “weak” when the score was less than 6 and “strong” when it was higher than 6
Li 2014, (11)	EPR10138 (B), EPITOMICS, California, US (1:100)	Streptavidin peroxidase (SP)	Intensity: negative, 0; weak, 1+; moderate, 2+; intense, 3+. A mean percentage of positive tumor cells was determined in five areas at 400 magnifications and assigned from 0 to 100%. Thus, the percentage of positive tumor cells and the staining intensity were multiplied to produce a weighted score for each case: ranging from 0 (0 of cells staining) to 3 (100% of the cells staining at 3+ intensity). For convenience in statistical analysis, they defined the score <0.75 as low expression and ≥0.75 as overexpression
Zhan 2013, (12)	Cell Signaling Technology, Boston, MA, USA (1:100)	EnVision	Staining intensity was scored as: 1, weak; 2, moderate, and 3, intensive. The percentage of positive cells was rated as follows: 1, 1–10% positive cells; 2, 11–50%; 3, 51–80%; and 4, more than 80% positive cells. Scores for percentage of positive cells and for expression intensities were multiplied to calculate an immunoreactive score (IRS). Finally, they separated the specimens according to the PKM2 protein level in four groups: negative, IRS 0–1; weak, IRS 2–4; moderate, IRS 6–8; strong, IRS 9–12
Zhang 2013, (13)	Abgent, CA, USA (1:30)	Streptavidin peroxidase (SP)	Staining intensity: 0 score for non-staining, 1 score for poor staining, 2 scores for moderate staining, and 3 scores for strong staining. The percentage of positive cells (P) was scored on a scale of 0–3: 0 score for non-staining, 1 score for <20%, 2 scores for 20% to <75%, and 3 scores for ≥75%. The total histological score (H) was calculated by the formula: $H = I \times P$ (score <4 for low expression group, score ≥4 for high expression group)
Ma 2019, (14)	Proteintech, Chicago (1:100)	EnVision	Four grades each were assigned for staining intensity (0, none; 1, weak; 2, moderate; and 3, strong) and percentage of positive cells (0, <10%; 1, 10–25%; 2, 25–50%; and 3, >50%). ESCC patients were classified into two groups according to total score (staining intensity plus positive cell score), specifically, “low expression” (total score, 0–2) and “high expression” (total score, 3–6) for analysis of prognosis between groups

PKM2, pyruvate kinase M2; ESCC, esophageal squamous cell carcinoma.