

Supplementary Table 1. Clinicopathologic characteristics of patients with head and

neck cancer included in this study

Characteristics	No.	Characteristics	No.
Sex		N classification	
Female	14	N0	51
Male	56	N1	12
Stage		N2	7
I	11	M classification	
II	18	M0	68
III	17	M1	2
IV	24	Grade	
Age (years)		Not applicable	12
< 55	37	1	23
≥ 55	33	2	25
T classification		3	10
T1	13	Anatomic site	
T2	24	Pharynx	5
T3	13	Nasal cavity	8
T4	20	Oral cavity	20
		Larynx	37

Supplementary Table 2. Primer sequences used in RT-qPCR

Genes	Forward primer/Reverse primer
PKM	5'-GTCGAAGCCCCATAGTGAAG-3' 5'-GTGAATCAATGTCCAGGCGG-3'
PKM1	5'-TCACTCCACAGACCTCATGG-3' 5'-GAAGATGCCACGGTACAGGT-3'
PKM2	5'-AGGC TGCCATCTACCACTTG-3' 5'-CACTGCAGCACTTGAAGGAG-3'
PDK1	5'-CACCATGCCAACAGAGGTGTT-3' 5'-CCTCATTACCCAGCGTGACA-3'
PDK2	5'-TACGTCCCCTCCCACCTCTA-3' 5'-GCCCTCATGGCATTCTTGA-3'
PDK4	5'-CCTTTGGCTGGTTTTTGGTTA-3' 5'-CCTGCTTGGGATACACCACTG-3'
PDH	5'-GGCGCAAGTTGGTGATCCTA-3' 5'-CTCCAGAAAATGCCACTCGAA-3'
LDHA	5'-AGCGGTTGCAATCTGGATTG-3' 5'-GGTGAAGTCCCAGCCTTTCC-3'
GLUT1	5'-TCACTGTGCTCCTGGTTCTG-3' 5'-CCTGTGCTCCTGAGAGATCC-3'
HK2	5'-CAAAGTGACAGTGGGTGTGG-3' 5'-GCCAGGTCCTTCACTGTCTC-3'
Nanog	5'-CCCAAAGGCAAACAACCCACTTCT-3' 5'-AGCTGGGTGGAAGAGAACACAGTT-3'
Sox2	5'-GCACATGAACGGCTGGAGCAACG-3' 5'-TGCTGCGAGTAGGACATGCTGTAGG-3'
Oct4	5'-GTGGAGGAAGCTGACAACAA-3' 5'-ATTCTCCAGGTTGCCTCTCA-3'
CD44	5'-CCGCTATGTCCAGAAAGGA-3' 5'-CTGTCTGTGCTGTCGGTGAT-3'
CD133	5'-TGGATGCAGAACTTGACAACGT-3' 5'-ATACCTGCTACGACAGTCGTGGT-3'
Bmi-1	5'-TGGAGAAGGAATGGTCCACTTC-3' 5'-GTGAGGAAACTGTGGATGAGGA-3'
ABCC1	5'-TGCTGCACCAGTACTTCCACAT-3' 5'-CCCCAATGACAGCGGTCTT-3'
ABCG2	5'-GCAGCTCTTCGGCTTGCA-3' 5'-CCCTGTTAATCCGTTTCGTTTTT-3'
ABCB1	5'-GCTCATCGTTTGTCTACAGTTCGT-3' 5'-ACAATGACTCCATCATCGAAACC-3'
β -actin	5'-AGAGCTACGAGCTGCCTGAC-3' 5'-AGCACTGTGTTGGCGTACAG-3'

Graphical abstract of the present study

PKM2 inhibition enhanced mitochondrial respiratory activity (1) and upregulated Wnt-FZD expression, thereby driving β -catenin nuclear translocation (2). The increased nuclear PKM2 translocation may form a complex with β -catenin and promote signaling transactivation (3), which consequently augments CSCs formation, self-renewal capacity, chemoresistance, tumorigenicity, and initiates poorly differentiated tumors in patients with head and neck cancer (4).