



**Figure S1. Representative images of EGFR, HER2, and c-Met with corresponding immunohistochemical scores ranging from 0 to 3+ (scale bar, 100  $\mu$ m). The red box delineates the scores that were classified as positive for the purpose of this analysis.**

**Table S1. Comparison of clinicopathological factors among patients with ampulla of Vater carcinoma based on the expression of EGFR, HER2, and c-Met.**

Variables	Total (n=87)	EGFR positive (n=76)	<i>p</i> value	HER2 positive (n=10)	<i>p</i> value	c-Met positive (n=43)	<i>p</i> value
Age, Median (Range)	65 (39-87)	65 (39-87)	0.567	67 (50-79)	0.378	65 (42-83)	0.600
<b>Gender, n (%)</b>							
Male	49 (56.3)	42 (55.3)	0.749	8 (80.0)	0.175	27 (62.8)	0.229
Female	38 (43.7)	34 (44.7)		2 (20.0)		16 (37.2)	
Tumor size, cm, mean $\pm$ SD	2.5 $\pm$ 1.1	2.4 $\pm$ 1.0	0.734	2.6 $\pm$ 1.1	0.625	2.3 $\pm$ 1.0	0.154
<b>Histologic grading, n (%)</b>							
Grade 1	15 (17.2)	10 (13.2)	<b>0.008</b>	1 (10.0)	1.000	8 (18.6)	0.739
Grade 2/3	72 (82.8)	66 (86.8)		9 (90.0)		35 (81.4)	
<b>Tumor Category, n (%)</b>							
T1-2	47 (54.0)	39 (51.3)	0.183	4 (40.0)	0.502	27 (62.8)	0.105
T3-4	40 (46.0)	37 (48.7)		6 (60.0)		16 (37.2)	

**Node Category, n (%)**

N0	37 (42.5)	33 (43.4)	0.658	2 (20.0)	0.179	25 (58.1)	<b>0.004</b>
N1-2	50 (57.5)	43 (56.6)		8 (80.0)		18 (41.9)	

**TNM Stage\*, n (%)**

Stage I-II	38 (43.7)	34 (44.7)	0.601	2 (20.0)	0.175	26 (60.5)	<b>0.002</b>
Stage III-IV	49 (56.3)	42 (55.3)		8 (80.0)		17 (39.5)	

**EGFR expression, n (%)**

Positive	76 (87.4)			8 (80.0)	0.608	41 (95.3)	<b>0.049</b>
Negative	11 (12.6)			2 (20.0)		2 (4.7)	

**HER2 expression, n (%)**

Positive	10 (11.5)	8 (10.5)	0.608			4 (9.3)	0.739
Negative	77 (88.5)	68 (89.5)				39 (90.7)	

**c-Met expression, n (%)**

Positive	43 (49.4)	41 (53.9)	<b>0.049</b>	4 (40.0)	0.739		
Negative	44 (50.6)	35 (46.1)		6 (60.0)			

**Lymphatic invasion, n (%)**

No	37 (42.5)	30 (39.5)	0.192	4 (40.0)	1.000	23 (53.5)	<b>0.041</b>
Yes	50 (57.5)	46 (60.5)		6 (60.0)		20 (46.5)	

**Vascular invasion, n (%)**

No	68 (78.2)	58 (76.3)	0.443	8 (80.0)	1.000	34 (79.1)	0.839
Yes	19 (21.8)	18 (23.7)		2 (20.0)		9 (20.9)	

**Perineural invasion, n (%)**

No	64 (73.6)	56 (73.7)	1.000	9 (90.0)	0.279	32 (74.4)	1.000
Yes	23 (26.4)	20 (26.3)		1 (10.0)		11 (25.6)	

**Preoperative CA19-9 level, n (%)**

Within normal (<40U/mL)	39 (44.8)	31 (40.8)	0.116	3 (30.0)	0.593	20 (46.5)	0.633
Above normal (≥40U/mL)	40 (46.0)	37 (48.7)		6 (60.0)		18 (41.9)	
Missing data	8 (9.2)	8 (10.5)		1 (10.0)		5 (11.6)	

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*EGFR* epidermal growth factor receptor, *HER2* human epidermal growth factor receptor 2, *CA 19-9* carbohydrate antigen 19-9.

\*According to American Joint Committee on Cancer 8<sup>th</sup> edition.