

**Supplementary Table 5. Clinical activity of bintrafusp alfa in subgroups according to tumour PD-L1 expression and HPV status**

Clinical activity endpoint	Tumour PD-L1 expression		HPV status	
	<1% n=6	≥1% n=25	Positive n=9	Negative n=22
Confirmed BOR, n (%)				
CR	0	0	0	0
PR	1 (17)	3 (12)	3 (33)	1 (5)
SD	1 (17)	3 (12)	0	4 (18)
Non-CR/non-PD*	1 (17)	2 (8)	1 (11)	2 (9)
PD	3 (50)	15 (60)	5 (56)	14 (64)
Not evaluable	0	2 (8)	0	1 (5)
Confirmed ORR (95% CI), %	17 (0-64)	12 (3-31)	33 (8-70)	5 (0-23)
DCR (95% CI), %	33 (4-78)	24 (9-45)	33 (8-70)	23 (8-45)
Median PFS (95% CI), months	2·4 (1·2-NE)	1·4 (1·2-3·9)	2·7 (1·2-19·6)	1·3 (1·2-4·0)
PFS rate (95% CI), %				
6-month	33 (5-68)	19 (6-37)	44 (14-72)	21 (7-40)
12-month	33 (5-68)	14 (4-31)	33 (8-62)	16 (4-35)
18-month	33 (5-68)	14 (4-31)	33 (8-62)	16 (4-35)
Median OS (95% CI), months	NE (3·2-NE)	8·8 (6·3-NE)	8·0 (2·7-NE)	9·1 (6·3-NE)
OS rate (95% CI), %				
6-month	67 (20-90)	75 (53-88)	67 (28-88)	77 (54-90)
12-month	50 (11-80)	45 (25-64)	44 (14-72)	49 (27-68)
18-month	50 (11-80)	40 (20-59)	44 (14-72)	44 (23-63)

BOR, best overall response; CR, complete response; DCR, disease control rate; NE, not estimable; ORR, objective response rate; OS, overall survival; PD, progressive disease; PFS, progression-free survival; PR, partial response; SD, stable disease.

\* Persistence of one or more non-target lesion(s) and/or maintenance of tumour marker level above the normal limits.