

Table 1 Supplement: EGFR Mutations Associated with Disease Control (Partial Response, Complete Response, or Stable Disease)<sup>+</sup>

Mutation	N					Number of unique		References
	Therapy- response instances	PR responses	SD responses	CR responses	Disease control total (PR+SD+CR)	Patients <sup>a</sup>	Studies *	
<b>A702S</b>	2	2	0	0	2	2	1	1
<b>A839T</b>	2	2	0	0	2	2	2	2,3
<b>A840A + V843I</b>	1	1	0	0	1	1	1	4
<b>A871T</b>	1	1	0	0	1	1	1	3
<b>Del18 E709- T710insD</b>	2	0	1	0	1	2	1	5
<b>Del19 E746-A750 (alone)</b>	215	147	34	10	191	203	56	1-4,6-33
<b>Del19 E746-A750 + A871V</b>	2	2	0	0	2	2	2	4,34

<b>Del19 E746-A750 + E804K</b>	1	1	0	0	1	1	1	34
<b>Del19 E746-A750 + G796A</b>	1	0	1	0	1	1	1	20
<b>Del19 E746-A750 + L858R</b>	3	3	0	0	3	3	2	20,35
<b>Del19 E746-A750 + L861Q</b>	1	0	1	0	1	1	1	3
<b>Del19 E746-A750 + V802F</b>	1	1	0	0	1	1	1	1
<b>Del19 E746-A750 + V851V</b>	1	0	1	0	1	1	1	36
<b>Del19 E746-A750;L747-T751</b>	1	0	1	0	1	1	1	26
<b>Del19 E746-A750insQ</b>	1	1	0	0	1	1	1	14
<b>Del19 E746-E749</b>	1	1	0	0	1	1	1	20
<b>Del19 E746-E749 + Del19 S752-P753</b>	1	1	0	0	1	1	1	17
<b>Del19 E746I;L747-S752</b>	1	0	1	0	1	1	1	11
<b>Del19 E746-</b>	1	1	0	0	1	1	1	8

<b>S752insA</b>								
<b>Del19 E746-S752insI</b>	1	1	0	0	1	1	1	14
<b>Del19 E746-S725insV</b>	5	4	0	1	5	5	4	6,8,12,37
<b>Del19 E746-T751</b>	2	1	1	0	2	2	2	12,16
<b>Del19 E746-T751insA</b>	10	6	2	0	8	9	8	1-3,7,8,12,38,39
<b>Del19 E746-T751insA + R803W</b>	1	0	1	0	1	1	1	7
<b>Del19 E746-T751insF</b>	1	1	0	0	1	1	1	23
<b>Del19 E746-T751insV</b>	1	1	0	0	1	1	1	37
<b>Del19 E746-T751insV + E865L</b>	1	1	0	0	1	1	1	4
<b>Del19 E746V;L747-S752</b>	3	3	0	0	3	3	3	19,40,41
<b>Del19 E747-P753insS</b>	1	1	0	0	1	1	1	31
<b>Del19 E747-T750</b>	1	1	0	0	1	1	1	31
<b>Del19 K745-A750</b>	1	0	1	0	1	1	1	42
<b>Del19 K745-</b>	4	3	1	0	4	4	1	1

<b>A750insK</b>								
<b>Del19 K745-E749</b>	1	1	0	0	1	1	1	43
<b>Del19 K745-E749insK</b>	1	0	1	0	1	1	1	11
<b>Del19 L746-E749</b>	1	1	0	0	1	1	1	13
<b>Del19 L746-E749;A750P</b>	2	2	0	0	2	2	1	41
<b>Del19 L747-A750insP</b>	5	4	0	1	5	5	3	2,3,14
<b>Del19 L747-A751insP</b>	6	3	1	0	4	3	1	39
<b>Del19 L747-A755insS</b>	2	0	2	0	2	1	1	36
<b>Del19 L747-E749</b>	1	1	0	0	1	1	1	7
<b>Del19 L747-E749;A750P</b>	4	3	0	1	4	4	3	17,18,40
<b>Del19 L747-E750insP</b>	3	2	0	0	2	3	1	13
<b>Del19 L747-P752insPL</b>	1	1	0	0	1	1	1	44
<b>Del19 L747-P753</b>	5	5	0	0	5	5	2	13,45
<b>Del19 L747-</b>	14	13	1	0	14	14	10	4,6-8,28,40,44-47

<b>P753insS</b>								
<b>Del19 L747- P753insS + L861Q</b>	1	1	0	0	1	1	1	12
<b>Del19 L747-S752</b>	8	5	1	1	7	7	6	1,11,14,26,33,39
<b>Del19 L747- S752;P753S</b>	1	1	0	0	1	1	1	41
<b>Del19 L747- S752insQ</b>	2	2	0	0	2	2	2	10,45
<b>Del19 L747- S752insV</b>	1	1	0	0	1	1	1	46
<b>Del19 L747-T751</b>	8	7	1	0	8	8	6	4,7,13,26,48,49
<b>Del19 L747-T751 + R776S</b>	1	1	0	0	1	1	1	27
<b>Del19 L747- T751insA</b>	1	1	0	0	1	1	1	23
<b>Del19 L747- T751insF</b>	1	1	0	0	1	1	1	12
<b>Del19 L747- T751insP</b>	1	1	0	0	1	1	1	8
<b>Del19 S752-I759</b>	1	1	0	0	1	1	1	14
<b>Del19 unspecified</b>	118	85	13	9	107	109	33	77– 105 <sup>15,27,50,51</sup>

<b>Del19 unspecified + L858R</b>	10	7	1	1	<b>9</b>	<b>10</b>	<b>2</b>	52,53
<b>Del19 unspecified + L861Q</b>	2	1	1	0	<b>2</b>	<b>2</b>	<b>2</b>	51,53
<b>Del19 unspecified + L861Q + G873E</b>	1	0	1	0	<b>1</b>	<b>1</b>	<b>1</b>	51
<b>Del19 unspecified + V774L</b>	1	1	0	0	<b>1</b>	<b>1</b>	<b>1</b>	54
<b>E709Q</b>	1	1	0	0	<b>1</b>	<b>1</b>	<b>1</b>	7
<b>E746G</b>	1	1	0	0	<b>1</b>	<b>1</b>	<b>1</b>	5
<b>E746V</b>	1	0	1	0	<b>1</b>	<b>1</b>	<b>1</b>	55
<b>E868V</b>	2	0	2	0	<b>2</b>	<b>1</b>	<b>1</b>	36
<b>Exon19 unspecified</b>	1	1	0	0	<b>1</b>	<b>1</b>	<b>1</b>	56
<b>F712S + D855G + E868G</b>	1	1	0	0	<b>1</b>	<b>1</b>	<b>1</b>	3
<b>G719A</b>	11	6	1	0	<b>7</b>	<b>11</b>	<b>5</b>	8,11,12,23,49
<b>G719A + E709A</b>	1	1	0	0	<b>1</b>	<b>1</b>	<b>1</b>	57
<b>G719A + E709K</b>	1	1	0	0	<b>1</b>	<b>1</b>	<b>1</b>	8
<b>G719A + G779C</b>	1	1	0	0	<b>1</b>	<b>1</b>	<b>1</b>	51
<b>G719A + S720F</b>	1	1	0	0	<b>1</b>	<b>1</b>	<b>1</b>	34
<b>G719C</b>	2	2	0	0	<b>2</b>	<b>2</b>	<b>2</b>	9,47
<b>G719C + S768I</b>	1	1	0	0	<b>1</b>	<b>1</b>	<b>1</b>	34

<b>G719D</b>	3	1	2	0	3	3	2	5,55
<b>G719D + L861Q</b>	1	1	0	0	1	1	1	5
<b>G719S</b>	1	0	1	0	1	1	1	14
<b>G719S + I706T + Q701L</b>	1	1	0	0	1	1	1	5
<b>G721A</b>	2	1	0	1	2	2	1	1
<b>G779S</b>	1	0	1	0	1	1	1	54
<b>G857E</b>	2	0	2	0	2	2	2	30,55
<b>G857R</b>	1	1	0	0	1	1	1	3
<b>G863D</b>	2	2	0	0	2	2	2	7,21
<b>G863S</b>	1	0	1	0	1	1	1	55
<b>G874S</b>	1	0	1	0	1	1	1	55
<b>I744V</b>	1	1	0	0	1	1	1	1
<b>K708M</b>	1	1	0	0	1	1	1	1
<b>K846R</b>	2	2	0	0	2	2	2	2,3
<b>L692P</b>	2	0	1	0	1	2	2	30,55
<b>L703P</b>	1	0	1	0	1	1	1	1
<b>L718P</b>	2	2	0	0	2	2	2	12,23
<b>L747S</b>	1	0	1	0	1	1	1	55
<b>L838L</b>	1	1	0	0	1	1	1	21
<b>L838P</b>	2	2	0	0	2	2	2	4,5
<b>L858</b>	6	2	2	0	4	3	1	58

<b>L858R (alone)</b>	235	156	47	7	<b>210</b>	<b>225</b>	<b>62</b>	1-4,6-22,24- 29,31,37,39,40,42 ,45-48,50,59  70,73,74,7 8- 80,83,85- 87,89,90,9 2,94,99,10 4,107-117
<b>L858R + D761Y (de novo)</b>	2	0	1	0	<b>1</b>	<b>2</b>	<b>2</b>	29,118
<b>L858R + E709A</b>	1	0	1	0	<b>1</b>	<b>1</b>	<b>1</b>	15
<b>L858R + E709G</b>	3	2	0	0	<b>2</b>	<b>3</b>	<b>1</b>	15
<b>L858R + E709K</b>	1	1	0	0	<b>1</b>	<b>1</b>	<b>1</b>	81
<b>L858R + E758G</b>	2	2	0	0	<b>2</b>	<b>2</b>	<b>2</b>	14,44
<b>L858R + G721S</b>	1	0	1	0	<b>1</b>	<b>1</b>	<b>1</b>	29
<b>L858R + G779S</b>	3	3	0	0	<b>3</b>	<b>3</b>	<b>2</b>	44,119
<b>L858R + H850D</b>	4	0	2	0	<b>2</b>	<b>4</b>	<b>2</b>	17,44
<b>L858R + K860I</b>	1	1	0	0	<b>1</b>	<b>1</b>	<b>1</b>	44
<b>L858R + L833V</b>	1	1	0	0	<b>1</b>	<b>1</b>	<b>1</b>	84
<b>L858R + L861F</b>	1	1	0	0	<b>1</b>	<b>1</b>	<b>1</b>	44
<b>L858R + R776C</b>	2	2	0	0	<b>2</b>	<b>2</b>	<b>2</b>	16,86
<b>L858R + R776H</b>	1	1	0	0	<b>1</b>	<b>1</b>	<b>1</b>	44
<b>L858R + S768I</b>	4	4	0	0	<b>4</b>	<b>4</b>	<b>4</b>	15,17,44,1



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<b>L858R + V689L</b>	1	1	0	0	1	1	1	32
<b>L858R + V802F</b>	1	1	0	0	1	1	1	11
<b>L858R + V834L</b>	1	1	0	0	1	1	1	44
<b>L858R + V843I</b>	1	0	1	0	1	1	1	81
<b>L861Q (alone)</b>	14	7	5	0	12	13	8	13,15,18,4 3,55,57,73, 76
<b>L861Q + K860I</b>	1	0	1	0	1	1	1	44
<b>L861Q + R776H</b>	2	0	2	0	2	2	2	<sup>13</sup> ,44
<b>L861Q + R831H</b>	2	0	2	0	2	2	2	<sup>13</sup> ,44
<b>L861R</b>	3	1	1	0	2	3	3	30 <sup>5,13</sup>
<b>L861R+ R831C</b>	1	1	0	0	1	1	1	<sup>5</sup>
<b>N700D</b>	1	1	0	0	1	1	1	18
<b>N756D</b>	1	1	0	0	1	1	1	25
<b>N826S</b>	1	0	1	0	1	1	1	18
<b>P691S</b>	1	0	1	0	1	1	1	81
<b>P699S</b>	1	1	0	0	1	1	1	13
<b>R748W</b>	1	0	1	0	1	1	1	<sup>1</sup>
<b>R832L</b>	1	0	1	0	1	1	1	<sup>1</sup>
<b>R836C</b>	1	1	0	0	1	1	1	13
<b>S720P</b>	1	1	0	0	1	1	1	18
<b>S768I</b>	1	1	0	0	1	1	1	120

<b>S768I + L815L</b>	1	1	0	0	1	1	1	92
<b>S784F + V786M</b>	1	1	0	0	1	1	1	121
<b>S784P</b>	1	1	0	0	1	1	1	<sup>1</sup>
<b>S921R</b>	1	0	1	0	1	1	1	<sup>1</sup>
<b>T783A</b>	1	1	0	0	1	1	1	18
<b>V689M</b>	1	1	0	0	1	1	1	18
<b>V726M</b>	1	0	1	0	1	1	1	81
<b>V740A</b>	2	2	0	0	2	2	1	<sup>1</sup>
<b>V740L</b>	2	1	0	1	2	2	1	<sup>1</sup>
<b>V742A</b>	1	0	1	0	1	1	1	14
<b>V765A</b>	1	1	0	0	1	1	1	18
<b>V765M + L798H + K806E + L814P</b>	3	3	0	0	3	3	1	13
<b>V774A</b>	1	1	0	0	1	1	1	15
<b>V819V</b>	1	0	1	0	1	1	1	92
<b>V834I</b>	1	1	0	0	1	1	1	15
<b>V843I</b>	1	0	1	0	1	1	1	81
<b>V851I</b>	2	0	1	0	1	2	2	14,15
<b>W731Stop</b>	3	0	2	0	2	3	3	12,13,24
<b>Y727H</b>	1	0	1	0	1	1	1	81
<b>Wild-type</b>	88	7	57	0	64	83	11	33,34,56,7 0,78,85,88,

								91,98,122, 123
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<sup>†</sup>Response is defined as patients achieving CR (complete response), PR (partial response), or SD (stable disease) as defined by the Response Evaluation Criteria in Solid Tumors (RECIST) (7) following treatment with EGFR TKI (gefitinib or erlotinib).

<sup>a</sup> Number of unique patients does not match the number of therapy-response entries since one patient may have been treated with EGFR TKIs in different lines of treatment and thus may have multiple associated therapy-response entries.

\*Number of unique studies refers to the number of different studies that encompass all of the patients with a particular mutation in DIRECT.



## References

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