

Archer™ FUSIONPlex™ Core Solid Tumor panel

Gene	Accession	Exon	Variant type	Description**
<i>AKT1</i>	NM_005163	3	Mutation	Hotspot coverage including p.E17
<i>AKT1</i>	NM_005163	2, 3, 4, 5, mid-exon5	Fusion, Expression	5'
<i>ALK</i>	NM_004304	1, 2	Internal deletion (ALKΔ2-17, ALKΔ2-3)	3'
<i>ALK</i>	NM_004304	2, 4, 6, 8, 10, 12, 14, 16, 17, 18, 19, intron19, 20, mid-exon20, 21, 22, 23, 26	Fusion, ALK ATL', Internal deletion (ALKΔ2-17, ALKΔ2-3), Expression	5'
<i>ALK</i>	NM_004304	21, 22, 23, 24, 25	Mutation	Full exon coverage including p.P1153-p.C1156, p.F1174, p.L1196-p.S1206, p.G1269
<i>ALK</i>	NM_004304	9, 12, 16, 20	Mutation	Hotspot coverage including p.V597, p.H694, p.G881, p.K1062
<i>AXL</i>	NM_021913	18, 19, mid-exon20, 20	Fusion	3'
<i>AXL</i>	NM_021913	11	Fusion	5'
<i>BRAF</i>	NM_004333	1, 2, 3, 7, 8, 10, 13, 14, 18	Fusion, Kinase Domain Duplication, BRAFΔ2-10, BRAFΔ4-10, BRAFΔ2-8, BRAFΔ3-8, BRAFΔ4-8	3'
<i>BRAF</i>	NM_004333	2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 15, 16	Fusion, Kinase Domain Duplication, BRAFΔ2-10, BRAFΔ4-10, BRAFΔ2-8, BRAFΔ3-8, BRAFΔ4-8, Expression	5'
<i>BRAF</i>	NM_004333	11, 15	Mutation	Full exon coverage including p.V600
<i>BRD3</i>	NM_007371	9, 10, 11, 12	Fusion	3'
<i>BRD4</i>	NM_058243	2*	Fusion	5'
<i>BRD4</i>	NM_058243	10, 11, 12, 13, 14	Fusion	3'
<i>CTNNB1</i>	NM_001904	3	Mutation	Full exon coverage
<i>CTNNB1</i>	NM_001904	8	Mutation	Hotspot coverage including p.W383-p.N387
<i>CYSLTR2</i>	NM_020377	5	Mutation	Hotspot p.L129
<i>DDR2</i>	NM_006182	17	Mutation	Full exon coverage
<i>DNAJB1</i>	NM_006145	1, 2	Fusion	3'
<i>EGFR</i>	NM_005228	1, 24, 25, mid-exon25, 26	Fusion, Exon 2-7 Skipping (EGFRvIII), Kinase Domain Duplication	3'

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<i>EGFR</i>	NM_005228	7, 8, 9, 14, 15, 16, 17, 18, 19, 20	Fusion, Exon 2-7 Skipping (EGFRvIII), Kinase Domain Duplication, Expression	5'
<i>EGFR</i>	NM_005228	18, 19, 20, 21	Mutation	Full exon coverage including p.E709-p.G719,p.E746-p.L760,p.V774-p.G796,p.L858-p.L861
<i>ERBB2</i>	NM_004448	15, 23, 24, 25, mid-exon26, 26	Fusion, Exon 16 skipping (Δ 16HER)	3'
<i>ERBB2</i>	NM_004448	4, 5, 13, 15, 17	Fusion, Exon 16 skipping (Δ 16HER), Expression	5'
<i>ERBB2</i>	NM_004448	17, 18, 19, 20, 21	Mutation	Full exon coverage including p.Y772-p.P780, p.C805
<i>ERBB2</i>	NM_004448	6, 7, 8, 12, 16	Mutation	Hotspot coverage including p.G222, p.E265, p.D277, p.G309, p.S310, p.C311, p.E321, p.C334, p.A440, p.R487, p.A644, p.E645, p.S649
<i>ERBB4</i>	NM_005235	2, 3, 4, 14, 15, 16, 17, 18, 23	Fusion	5'
<i>ERBB4</i>	NM_005235	7, 8, 12, 14, 15, 18, 20, 21, 23, 25, 27, 28	Mutation	Hotspot coverage including p.Y285, p.S303, p.R306, p.E317, p.E452, p.E542, p.R544, p.E563, p.D595, p.Q707, p.S774, p.L798, p.E836, p.D843, p.E872, p.D931, p.K935, p.K1002, p.F1102, p.K1223, p.R1275, p.S1289
<i>ERG</i>	NM_004449	2*, 3*, 4, 5, 6, 7, 8, 9, 10, 11	Fusion	5'
<i>ESR1</i>	NM_000125	1, 2, 3, 4, 5, 6, 7	Fusion	3'
<i>ESR1</i>	NM_000125	5, 6, 7, 8	Fusion	5'
<i>ESR1</i>	NM_000125	5, 6, 7, 8	Mutation	Hotspot coverage including p.E380, p.V422, p.S463, p.L469, p.L536, p.Y537, p.D538

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<i>FGFR1</i>	NM_015850	12, 17	Fusion, Kinase Domain Duplication	3'
<i>FGFR1</i>	NM_015850	2*, 3, 4, 5, 6, 7, 8, 9, 10, 11, 17	Fusion, Kinase Domain Duplication, Expression	5'
<i>FGFR1</i>	NM_023110	4, 13, 14	Mutation	Hotspot coverage including p.T141, p.V561, p.N546, p.K656
<i>FGFR2</i>	NM_000141	16, 17, 18	Fusion	3'
<i>FGFR2</i>	NM_000141	2*, 3, 5, 6, 7, 8, 9, 10	Fusion	5'
<i>FGFR2</i>	NM_000141	7, 8, 9, 12, 13, 14	Mutation	Hotspot coverage including p.S252, p.P253, p.G305, p.A314, p.Y375, p.C382, p.M391, p.V395, p.M537, p.I547, p.N549, p.V564, p.E565, p.K641, p.A648, p.K659
<i>FGFR3</i>	NM_000142	16, 17, intron17, mid-exon18	Fusion	3'
<i>FGFR3</i>	NM_000142	3, 5, 8, 9, 10, 11, 12, 13, 14	Fusion	5'
<i>FGFR3</i>	NM_000142	7, 9, 13, 14, 16	Mutation	Hotspot coverage including p.R248, p.S249, p.G370, p.S371, p.Y373, p.G380, p.R399, p.V555, p.D641, p.K650, p.G697, p.K715
<i>GNA11</i>	NM_002067	4, 5	Mutation	Hotspot coverage including p.R183, p.Q209
<i>GNAQ</i>	NM_002072	4, 5	Mutation	Hotspot coverage including p.R183, p.Q209
<i>GNAS</i>	NM_000516	8, 9	Mutation	Hotspot coverage including p.R201, p.Q227
<i>H3F3A</i>	NM_002107	2	Mutation	Hotspot coverage including p.K28
<i>HIST1H3B</i>	NM_003537	1	Mutation	Full exon coverage including p.K28
<i>HRAS</i>	NM_005343	2, 3, 4	Mutation	Full exon coverage including p.G12, p.G13, p.Q61, p.K117, p.A146

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<i>IDH1</i>	NM_005896	4, 5	Mutation	Hotspot coverage including p.G97, p.R100, p.R132, p.Y139
<i>IDH2</i>	NM_002168	4	Mutation	Hotspot coverage including p.R140, p.R172
<i>KEAP1</i>	NM_203500	2, 3, 4, 5, 6	Mutation	Full exon coverage
<i>KIT</i>	NM_000222	1	Fusion	3'
<i>KIT</i>	NM_000222	8	Fusion	5'
<i>KIT</i>	NM_000222	9, 10, 11, 13, 14, 17, 18	Mutation	Full exon coverage
<i>KRAS</i>	NM_004985	2, 3, 4	Mutation	Full exon coverage including p.G12, p.G13, p.Q61, p.K117, p.A146
<i>KRAS</i>	NM_004985	5	Mutation	Hotspot coverage including p.D153, p.F156
<i>LTK</i>	NM_002344	2, 3, 4, 5, 8, 9, 10, 11, 12, 13	Fusion	5'
<i>LTK</i>	NM_001135685	10	Fusion	5'
<i>MAP2K1</i>	NM_002755	2	Fusion	5'
<i>MAP2K1</i>	NM_002755	2, 3, 5, 6	Mutation	Full exon coverage including p.F53, p.D67
<i>MAP3K3</i>	NM_002401	8	Fusion	5'
<i>MAP3K8</i>	NM_005204	8	Fusion	3'
<i>MET</i>	NM_000245	2, 13	Fusion, Exon 14 Skipping (METΔex14)	3'
<i>MET</i>	NM_000245	2, 4, 5, 6, 13, 14, 15, 16, 17, 21	Fusion, Exon 14 Skipping (METΔex14)	5'
<i>MET</i>	NM_000245	14, 15, 16, 17, 18, 19, 20	Mutation	Full exon coverage
<i>MYB</i>	NM_001130173	7, 8, 9, 11, 12, 13, 14, 15, 16	Fusion	3'
<i>MYBL1</i>	NM_001080416	8, 9, mid-exon10, 10, 11, 12, 13, 14, 15	Fusion	3'
<i>NRAS</i>	NM_002524	2, 3, 4	Mutation	Full exon coverage including p.G12, p.G13, p.Q61, p.K117, p.A146
<i>NRG1</i>	NM_001159996	1*, 3, 4, 5	Fusion	5'

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<i>NRG1</i>	NM_004495	1, 2, 3, 4, 5, 6	Fusion	5'
<i>NRG1</i>	NM_013958	1*	Fusion	5'
<i>NRG1</i>	NM_013959	1*, 3	Fusion	5'
<i>NRG1</i>	NM_013962	1	Fusion	3'
<i>NRG1</i>	NM_013962	1*	Fusion	5'
<i>NTRK1</i>	NM_001007792	1, 2	Fusion	5'
<i>NTRK1</i>	NM_002529	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	Fusion	5'
<i>NTRK1</i>	NM_002529	13, 14, 15, 16, 17	Mutation	Full Kinase Domain coverage for resistance mutations including p.G595
<i>NTRK2</i>	NM_006180	11, 14	Fusion	3'
<i>NTRK2</i>	NM_006180	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18	Fusion	5'
<i>NTRK2</i>	NM_006180	16, 17, 18, 19, 20, 21	Mutation	Full Kinase Domain coverage for resistance mutations
<i>NTRK3</i>	NM_001007156	15	Fusion	5'
<i>NTRK3</i>	NM_002530	13, 14, 15, 17	Fusion	3'
<i>NTRK3</i>	NM_002530	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16	Fusion	5'
<i>NTRK3</i>	NM_002530	15, 16, 17, 18, 19	Mutation	Full Kinase Domain coverage for resistance mutation detection including p.F617,p.G623,p.G696
<i>NUTM1</i>	NM_175741	2*, 3, mid-exon3, 4, 5, mid-exon6, 6	Fusion	5'
<i>PAX8</i>	NM_003466	1*, 2, 6, 7, 8, 9, 10	Fusion	3'
<i>PAX8</i>	NM_003466	3	Fusion	5'
<i>PDGFRA</i>	NM_006206	6, 7	Fusion,PDGFRAΔ8,9	3'
<i>PDGFRA</i>	NM_006206	10, 11, 12, mid-exon12, 13, 14, 15	Fusion,PDGFRAΔ8,9	5'
<i>PDGFRA</i>	NM_006206	12, 14, 18	Mutation	Full exon coverage including p.D842
<i>PDGFRA</i>	NM_006206	6, 15	Mutation	Hotspot coverage including p.Y288, p.T674

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<i>PIK3CA</i>	NM_006218	2, 15	Fusion	5'
<i>PIK3CA</i>	NM_006218	2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 19, 20, 21	Mutation	Hotspot coverage including p.E81K-p.G118,p.L339-p.D350,p.G364,p.E418-p.C420,p.E453-p.K468,p.P539-p.Q546,p.E726,p.Y1021-p.T1052
<i>POLD1</i>	NM_002691	8, 9, 10, 11, 12	Mutation	Full exon coverage
<i>POLE</i>	NM_006231	9, 10, 11, 12, 13, 14	Mutation	Full exon coverage
<i>PPARG</i>	NM_015869	1, 2, 3	Fusion	5'
<i>PRKCA</i>	NM_002737	4, 5, 6, 9, 15	Fusion	5'
<i>PRKCB</i>	NM_002738	1, 3, 7, 8, 9	Fusion	5'
<i>RAF1</i>	NM_002880	4, 5, 6, 7, 8, 9	Fusion	3'
<i>RAF1</i>	NM_002880	2*, 4, 5, 6, 7, 8, 9, 10, 11, 12	Fusion	5'
<i>RET</i>	NM_020630	2, 4, 6, 8, 9, 10, 11, mid-exon11, 12, 13, 14	Fusion	5'
<i>RET</i>	NM_020630	8, 10, 11, 13, 14, 15, 16	Mutation	Hotspot coverage including p.A883, p.M918
<i>ROS1</i>	NM_002944	2, 4, 7, 31, 32, 33, 34, 35, 36, 37	Fusion	5'
<i>ROS1</i>	NM_002944	38, 39, 40	Mutation	Hotspot coverage including p.G2032, p.C2060, p.V2098, p.G2101
<i>STK11</i>	NM_000455	1, 2, 3, 4, 5, 6, 7, 8, 9	Mutation	Full exon coverage
<i>TMPRSS2</i>	NM_001135099	1	Fusion	3'
<i>TMPRSS2</i>	NM_005656	1*, 2, 3, 4, 5, 6	Fusion	3'
<i>TP53</i>	NM_000546	2, 3, 4, 5, 6, 7, 8, 9, 10, 11	Mutation	Full exon coverage
<i>TRIM11</i>	NM_145214	2, 3	Fusion	5'