

Product Name:

○ Purified RNA Fusion Panel 1	Part No.: RF162-001
○ Purified RNA Fusion Panel 2	Part No.: RF162-002
○ Purified RNA Fusion Panel 3	Part No.: RF162-003
○ Purified RNA Fusion Panel 4	Part No.: RF162-004
○ Purified RNA Fusion Panel 5	Part No.: RF162-005
○ Purified RNA Fusion Panel 6	Part No.: RF162-006
○ Purified RNA Fusion Panel 7	Part No.: RF162-007
○ Purified RNA Fusion Panel 8	Part No.: RF162-008
○ Multiplexed RNA Fusion Mix v3	Part No.: RF162-100

Description

Purified RNA Fusion Panels are reference materials formulated for use with molecular assays, particularly amplicon-based assays that detect RNA fusion transcripts of a wide range of cancer genes. For capture-based assays, please use a different product series, "Purified RNA Fusion Panels for Capture-Based Assay". Each panel contains 5 to 7 common RNA fusion sequences (listed in Table 1) in the background of total cellular RNAs from human tissue. The Multiplexed RNA Fusion Mix v3 contains all 51 fusions transcripts included in Panels 1–8..

Instruction for use

The products can be used directly in PCR or NGS applications.

Expected Results

Please refer to the product Certificate of Analysis for accurate information. Generally, the concentration of the total cellular RNA is at least 20ng/μl. The concentration of each RNA fusion is higher than 500 copies/μl. Please refer to the Certificate of Analysis for concentrations for a specific lot.

Storage

Please store at -70°C or lower. Shelf life when stored under these conditions is one year from the date of manufacture. Please refer to the product Certificate of Analysis for accurate expiration date.

Quality Control

1. The quantity of total RNA is determined by DeNovix RNA Assay.
2. The copy number of fusion RNA is determined by RT-qPCR.

Table 1.

ID	5' Gene Breakpoint (GRCh37/Hg19)	3' Gene Breakpoint (GRCh37/Hg19)
Panel1		
EML4-ALK v1	chr2:42522656	chr2:29446394
ETV6-NTRK3	chr12:12022903	chr15:88483984
CD74-ROS1	chr5:149784243	chr6:117645578
KIF5B-RET	chr10:32311776	chr10:43612032
SS18-SSX1	chr18:23612363	chrX:48123217 (chrX_jh806590_fix:503211)
COL1A1-PDGFB	chr17:48268178	chr22:39631879
LMNA-NTRK1	chr1:156100564	chr1:156844363
Panel2		
TPM3-NTRK1	chr1:154142876	chr1:156844363
FGFR3-TACC3	chr4:1808661	chr4:1739325
SLC34A2-ROS1	chr4:25665952	chr6:117650609
CCDC6-RET	chr10:61665880	chr10:43612032

TMPRSS2-ERG	chr21:42870046	chr21:39817544
PAX8-PPARG	chr2:113984732	chr3:12421203
FGFR2-PPHLN1	chr10:123243212	chr12:42745687
ID	5' Gene Breakpoint (GRCh37/Hg19)	3' Gene Breakpoint (GRCh37/Hg19)
Panel3		
EML4-ALK v2	chr2:42552694	chr2:29446394
FGFR2-AHCYL1	chr10:123243212	chr1:110551656
PPFIBP1-ROS1	chr12:27809663	chr6:117642557
PRKAR1A-RET	chr17:66522053	chr10:43612032
SS18-SSX2	chr18:23612363	chrX:52786931 (chrX_jh806587_fix:2470969)
TMPRSS2-ETV1	chr21:42870046	chr7:14017105
SLC45A3-ERG	chr1:205649522	chr21:39817544
Panel4		
EML4-ALK v3	chr2:42491871	chr2:29446394
FGFR2-BICC	chr10:123243212	chr10:60461834
EZR1-ROS1	chr6:159191796	chr6:117645578
NCOA4-RET	chr10:51582939 (chr10_jh591181_fix:283998)	chr10:43612032
PRCC-TFE3	chr1:156738031	chrX:48895967 (chrX_jh806590_fix:1277871)
MET Exon 14 Skipping	chr7:116411708	chr7:116414935
EWSR1-FLI1	chr22:29683123	chr11:128651853
Panel5		
NPM1-ALK	chr5:170818803	chr2: 29446394
TFG-NTRK1	chr3:100451516	chr1:156844363
SLC45A3-BRAF	chr1:205649522	chr7:140494267
EWSR1-ATF1	chr22:29684775	chr12:51203239
EGFR-SEPT14	chr7:55268106	chr7:55863785
EGFRVIII	chr7:55087058	chr7:55223523
QKI-NTRK2	Chr6:163984751	chr9:87482158
Panel6		
FIP1L1-PDGFR	chr4: 54280889	chr4:55141052
RUNX1-RUNX1T1	chr21:36231771	chr8:93029591
TCF3-PBX1	chr19:1619110	chr1:164761731
KAT6A-CREBBP	chr8:41794774	chr16:3901010
ETV6-ABL1	chr12:12006495	chr9:133729451
PCM1-JAK2	chr8:17830196	chr9:5069925
Panel7		
FIP1L1-PDGFR	chr4:54292132	chr4:55141089
RUNX1-RUNX1T1	chr21:36252854	chr8:93029593
TCF3-PBX1	chr19:1615684	chr1:164761730
KAT6A-CREBBP	chr8:41786996	chr16:3860780
ETV6-ABL1	chr12:12022903	chr9:133729451
PCM1-JAK2	chr8:17882962	chr9:5064882
Panel8		
FGFR3-TACC3v1	chr4:1808661	chr4:1741429
FGFR3-TACC3v3	chr4:1808661	chr4:1739325
FGFR3-BAIAP2L1	chr4:1808661	chr7:97991744
FGFR2-BICC1	chr10:123243212	chr10:60461834
FGFR2-CASP7	chr10:123243212	chr10:115457253

FOR IN VITRO RESEARCH USE ONLY