# FusionPlex® {{ panel\_name }}

## Description

The FusionPlex {{ panel\_name }} panel is an optimized, balanced pool of gene-specific primer (GSP) oligonucleotides that is used in conjunction with FusionPlex reagents and molecular barcode (MBC) adapters to produce targeted NGS libraries. This product insert should be used in conjunction with FusionPlex protocol for Illumina® (PRO028) or FusionPlex protocol for Ion Torrent™ (PRO029).

## Contents

|  |  |  |
| --- | --- | --- |
| Description | Part number | Storage conditions |
| FusionPlex® {{ panel\_name }} GSP1 - {{ num\_reactions }} reactions | {{ prefix }}{{ design\_id }}{{ ‘%02d’ % num\_reactions }}1 | -20°C ± 10°C |
| FusionPlex® {{ panel\_name }} GSP2 - {{ num\_reactions }} reactions | {{ prefix }}{{ design\_id }}{{ ‘%02d’ % num\_reactions }}2 |
| 10X VCP Primer Mix | SA0126 |

## Recommended PCR cycling

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Step | Temperature (°C) | Time | Cycles |
| First PCR reaction | **1** | 95 | 3 min | 1 |
| **2** | 95 | 30 sec | {{ pcr\_info.pcr\_1\_cycles }} |
| **3** | {{ pcr\_info.pcr\_1\_temp }} | {{ pcr\_info.pcr\_1\_anneal\_time }} min (100% ramp rate) |
| **4** | 72 | 3 min | 1 |
| **5** | 4 | Hold | 1 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Second PCR reaction | **1** | 95 | 3 min | 1 |
| **2** | 95 | 30 sec | {{ pcr\_info.pcr\_2\_cycles }}† |
| **3** | 65 | {{ pcr\_info.pcr\_2\_anneal\_time }} min (100% ramp rate) |
| **4** | 72 | 3 min | 1 |
| **5** | 4 | Hold | 1 |

†The number of PCR2 cycles may be decreased if you regularly experience library yields greater than 200nM.

## Recommended reads and multiplexing

FusionPlex {{ panel\_name }} libraries should be sequenced to a minimum of **{{ recommended\_reads }} reads**. Starting reads depth recommendations for standard profiling may be adjusted to increase panel sensitivity.

## Archer® Analysis settings

Sequencing data should be processed using Archer Analysis v{{ analysis\_version }} or greater). The FusionPlex {{ panel\_name }} panel requires selection of the ***RNA Fusion*** and (optional) ***RNA SNP/indel*** pipeline(s), found under the ***RNA*** Input Type (see the software user manual for further details on setting up analyses).

Processing of FusionPlex {{ panel\_name }} libraries requires a one-time upload of the Custom Panel GTF. Files can be obtained by contacting adx-tech-support@invitae.com.

## Limitations of use

**For research use only.** Not for use in diagnostic procedures. Not intended to be used in treatment of animal or human diseases.

Safety data sheets pertaining to this product are available upon request.

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