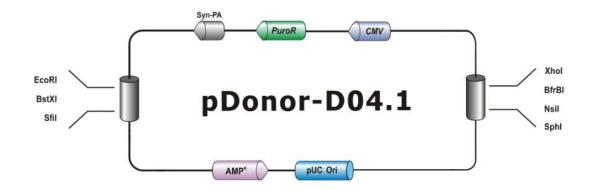


# Datasheet for HCT116/BRAF V600E cancer marker mutation cell lines (Heterozygote)

Catalog number:	SL706
Product:	HCT116/BRAF V600E cancer marker mutation cell lines (Heterozygote) with spike- in signature at 587D and 588L locus
Description:	This product is a sgRNA and donor vectors (puromycin selection) for the EGFR L858R genome editing cell line. This cell line can be used <i>in vitro</i> as a reference for gene mutation detection or other related applications.
Spike-in*:	with spike-in signature at 587D and 588L locus
Quantity:	1 vial of 2 x 10 <sup>6</sup> cells; frozen
Shipping conditions:	Dry ice
Storage conditions:	Liquid nitrogen vapor phase. Remove the item from the dry ice packaging and check all items for damage and leakage. Place immediately into storage at or below -140 <sup>o</sup> C, preferably into the liquid nitrogen vapor phase, until use.

Transgene integration:



Source of parental line: HCT116 Organism: Homo sapiens, human Tissue: colon Cell Type: epithelial

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- Quality control: >95% viability before freezing. All cells were tested and found to be free of mycoplasma, bacteria, viruses, and other toxins.
- Safety instructions: To ensure safety, protective gloves, clothing, and a face mask should be worn when handling frozen vials. Some leakage may occur into the vial during storage. The liquid nitrogen will be converted to gas upon thawing. Due to the nature of nitrogen gas, pressure may build within the vial and possibly result in the vial exploding or losing its cap. This may cause flying debris.
- **Thawing procedure:** The vial of cells should be thawed in a 37 °C water bath with gentle agitation. For optimal performance, the vial should be thawed in under two minutes. Ensure that the cap of the vial did not loosen upon thawing, and re-tighten as needed. Spray the vial with 70% EtOH and wipe off. Repeat. Using aseptic technique, add the contents of the vial to 9 ml of complete growth medium (without selection). Centrifuge for 5 min. at 250 x g. Aspirate the medium, being careful not to disturb the pellet. Resuspend in 10 mL of complete growth medium, and place into a culture vessel of your choice. Only add selection to the medium after 24 hours in culture.

#### **Culture conditions:**

#### **Complete Growth Medium**

The base medium for this cell line is RPMI1640. For optimal growth and maintenance of selection, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

#### Selection

puromycin to a final concentration of 0.6 µg/mL

#### **Culture temperature:**

37  $^\circ\!\!\!\!\!^{\rm C}$  with 5%  $CO_2$ 

#### Subculture:

Replace culture medium with selection-free medium and incubate for up to 6 hours. Rinse the cells and split at  $1 \times 10^5$  viable cells/mL to  $1 \times 10^6$  cells/mL.



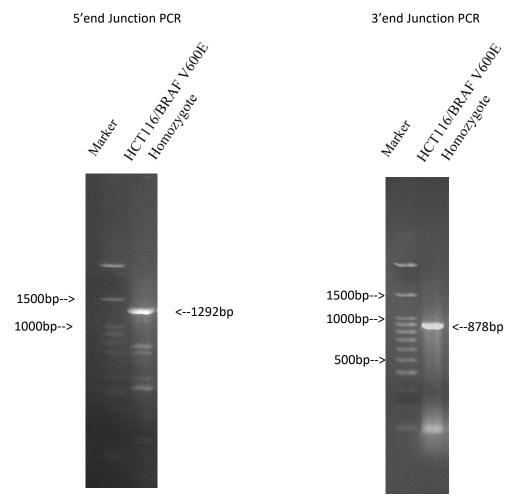
**Cryopreservation:** Freeze slowly in complete growth medium supplemented with 5% (v/v) DMSO.

 Mycoplasma:
 Negative

 (MycoAllert Mycoplasma Detection Kit from Lonza)

## **Product QC:**

(a) Junction PCR result:

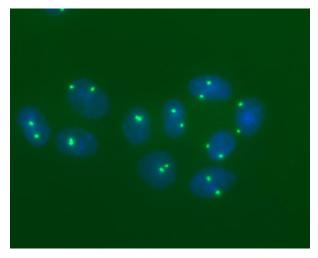


(b)Junction PCR positive statistics:

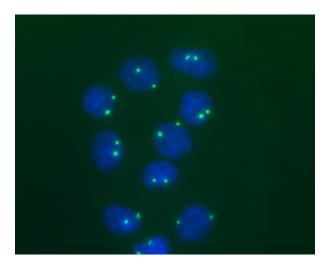
5'end Junction PCR positive amount (rate)	3'end Junction PCR positive amount (rate)	5'end and 3'end Junciton PCR double positive amount (rate)	Total sample amount
62(38.7%)	40(25%)	35(21.8%)	160



(c)FISH of EGFR probes on HCT cells :



HCT-116 wild type(WT)



HCT-116 BRAF-V600E

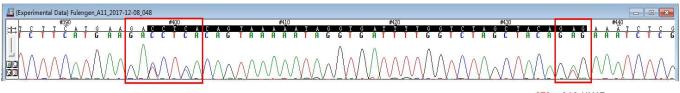
Fig.1 : **FISH of Human HCT-116 cells** : GCI VividFISH<sup>™</sup> FISH probes **CEP7** were hybridized on **HCT-116 wild type(WT)** and **HCT-116 BRAF-V600E** mutated cells . The two green signals are from Chromosome 7 centromeres. The cell nuclear are counter stained with DAPI which is shown in blue.

### (d)DNA Sequencing peak figure:

BRAF\_V600E fragment sequencing peak figure:

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GAC mutant to GAT D to D CTC mutant to CTA L to L GTG to GAG V600E

**Citation of product:** If use of this item results in a publication, please use this information: HCT116/BRAF V600E cancer marker mutation cell lines (SL706, GeneCopoeia, Inc., Rockville, MD).

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