**Supplementary Data**

**1. Supplementary Figure and Legend**



Figure S1. A. The mRNA expressions of E-cadherin and vimentin did not alter after KLF5 over-expression or knock-down in p53 wild-type Hep G2 cells. B. In p53 null Hep 3B cells, the mRNA expression of E-cadherin increased and the mRNA expression of vimentin decreased in KLF5 over-expressed cells, and the mRNA expression of E-cadherin decrease and the mRNA expression of vimentin increased in KLF5 knock-down cells. \**P*<0.05, data are presented as the means ± SD.



Figure S2. KLF5 did not influence the cell migration of BEL-7402 cells harboring wild type p53.



Figure S3. The mRNA expression of ZEB2 did not exhibit significant changes in Hep G2 and Hep 3B cells after KLF5 over-expresssion or knock-down.

**2. Supplementary Table**

**Table S1.** The characteristics of liver cancer patients

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Gender** | **Age** | **p53 expression** | **KLF5 expression** | **Metastasis** | **Application** |
| **(T compared to A)** | **(T compared to A)** | **(N/Y)** |
| Male | 52 | + | = | N | IHC |
| Male | 44 | = | + | N | IHC |
| Female | 51 | + | - | Y | IHC |
| Male | 57 | - | - | Y | IHC |
| Male | 42 | - | - | Y | IHC |
| Female | 73 | + | = | N | IHC |
| Female | 65 | + | + | N | IHC |
| Male | 56 | - | - | Y | IHC |
| Male | 62 | + | = | N | IHC |
| Male | 60 | + | + | N | IHC |
| Male | 61 | - | - | Y | WB (sample 1) |
| Female | 47 | = | - | N | WB (sample 2) |
| Male | 37 | + | + | N | WB (sample 3) |

+:the expression of p53/KLF5 in cancer tissue (T) is higher than adjacent normal liver tissue (A); =: the expression of p53/KLF5 in cancer tissue (T) is similar to adjacent normal liver tissue (A); -: the expression of p53/KLF5 in cancer tissue (T) is lower than adjacent normal liver tissue (A), N: liver cancer without metastasis; Y: liver cancer with metastasis, IHC: Immunohistochemistry, WB: Western blotting.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table S2.** Primers used for PCR | | | | |
| Name | Accession No. |  | Sequences (5'-3') | Product Size, bp |
| E-cad | NM\_004360.3 | Forward | CGAGAGCTACACGTTCACGG | 119 |
| Reverse | GGGTGTCGAGGGAAAAATAGG |
| vimentin | NM\_003380.2 | Forward | AGTCCACTGAGTACCGGAGAC | 98 |
| Reverse | CATTTCACGCATCTGGCGTTC |
| ZEB2 | NM\_014795.3 | Forward | CCCTGGCACAACAACGAGAT | 104 |
| Reverse | ATTGCGGTCTGGATCGTGG |
| KLF5 | NM\_001730.4 | Forward | ACACCAGACCGCAGCTCCA | 165 |
| Reverse | TCCATTGCTGCTGTCTGATTTGTAG |
| GAPDH | NM\_002046.5 | Forward | GAGTCAACGGATTTGGTCGT | 185 |
| Reverse | GACAAGCTTCCCGTTCTCAG |
| miR-192 promoter  Site 1 for ChIP |  | Forward | TCCTGGGTTCAAGCGATTCT | 81 |
| Reverse | AAATTAGCTGGGCATGGTGG |
| miR-192 promoter  Site 2 for ChIP |  | Forward | CACACAGTCCTCCCATCTCA | 101 |
| Reverse | GTGAAACCCCATCTCTACGAA |
| miR-192 promoter  Site 3 for ChIP |  | Forward | ATTGAGCCCTTTCTGTCTGC | 90 |
| Reverse | CTGTGTCCTCCTGTCCCAAA |

**3. The densitometry of immunoblot**

The densitometry of Figure 1



\**P*<0.05, ns *P*>0.05, data are presented as the means ± SD.

The densitometry of Figure 3



\**P*<0.05, ns *P*>0.05, data are presented as the means ± SD.

The densitometry of Figure 4C



\**P*<0.05, data are presented as the means ± SD.

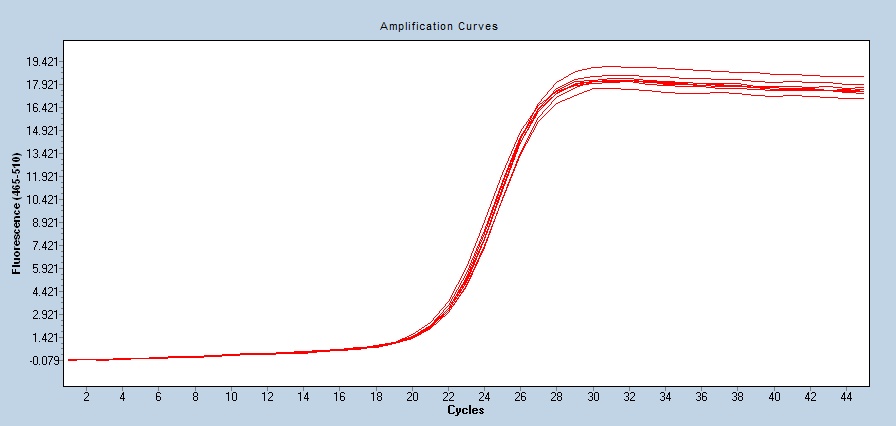
**4. The amplification plot of real time PCR**

The amplification plot of Figure 4

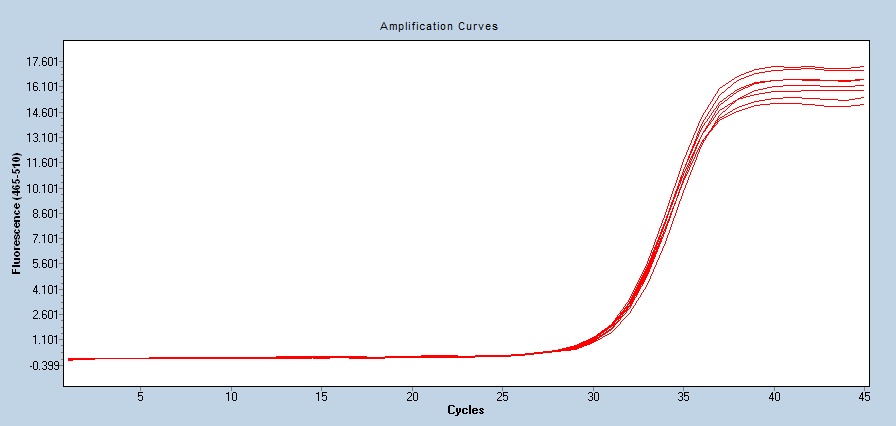
A

Hep G2

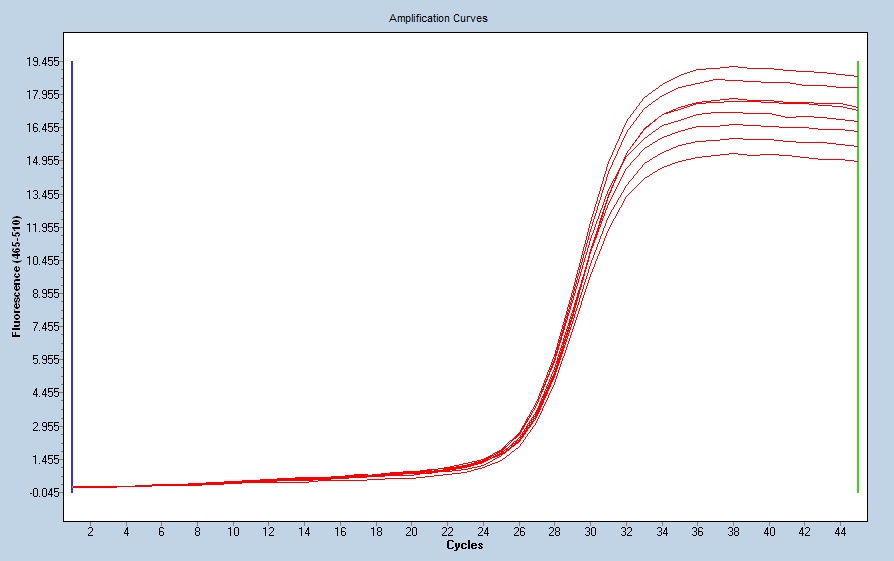
miR-200a



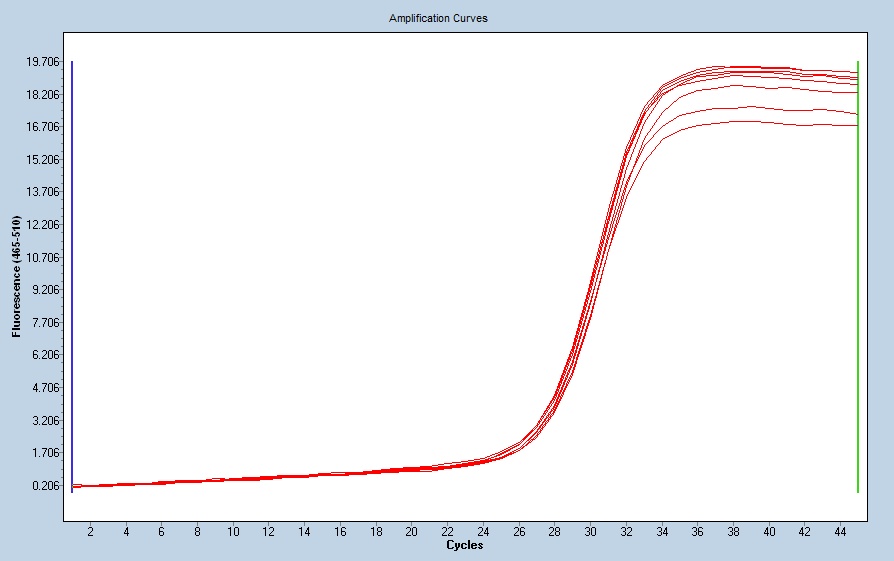
miR-200c



miR-153

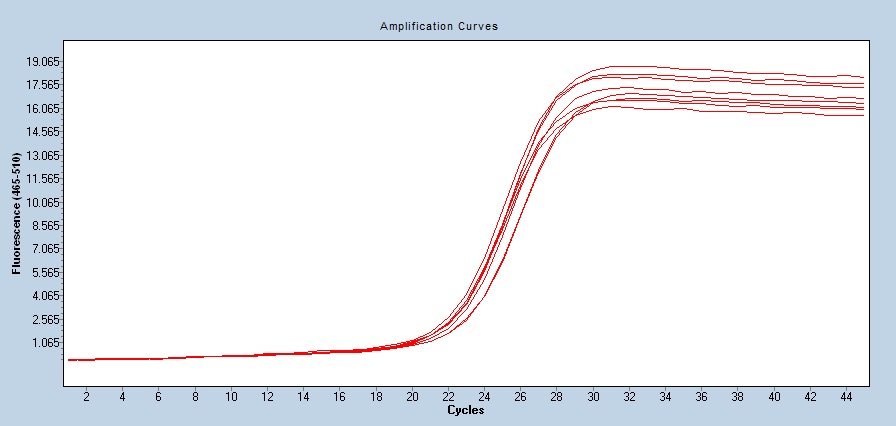


miR-192

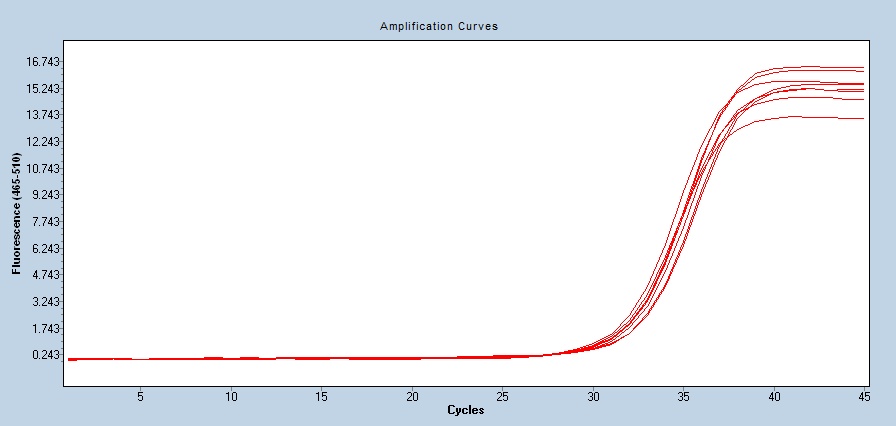


Hep 3B

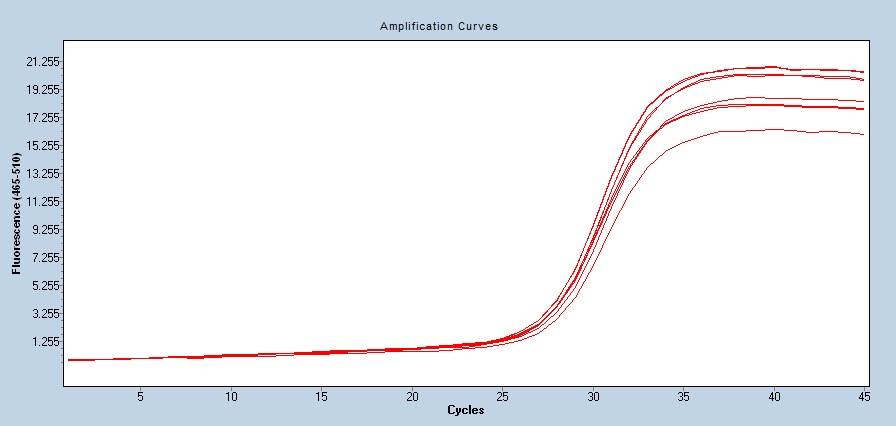
miR-200a



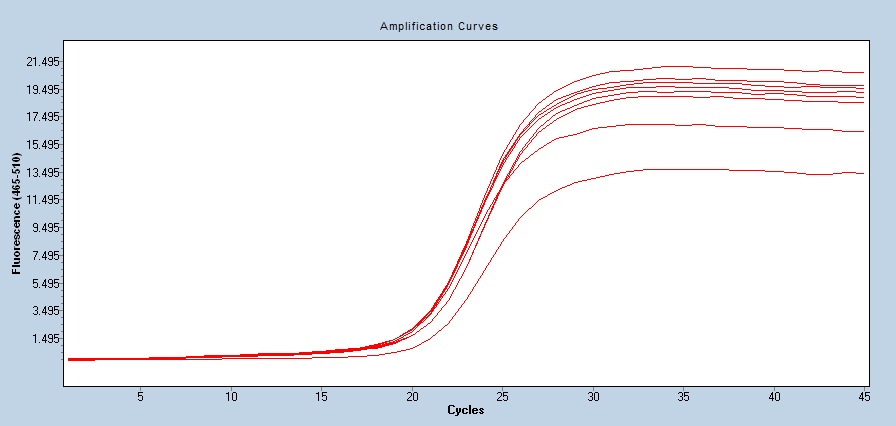
miR-200c



miR-153

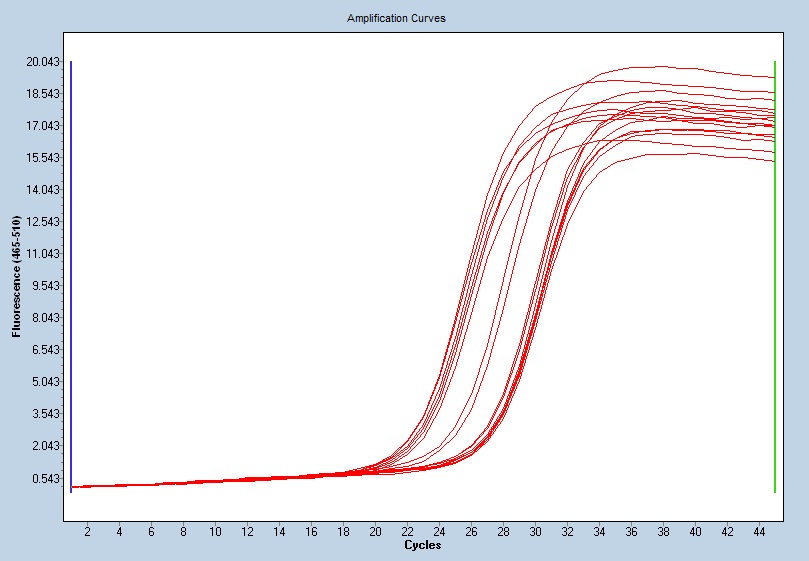


miR-192

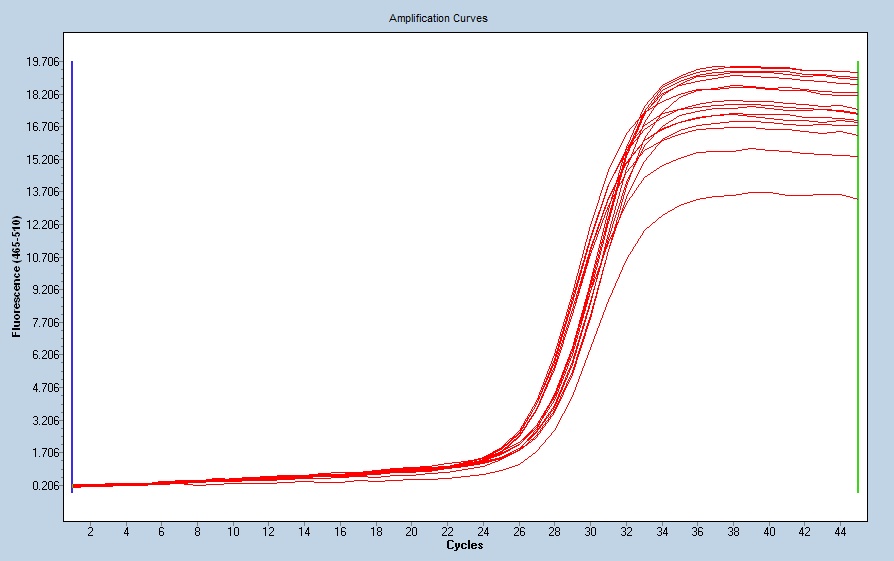


B

Hep G2



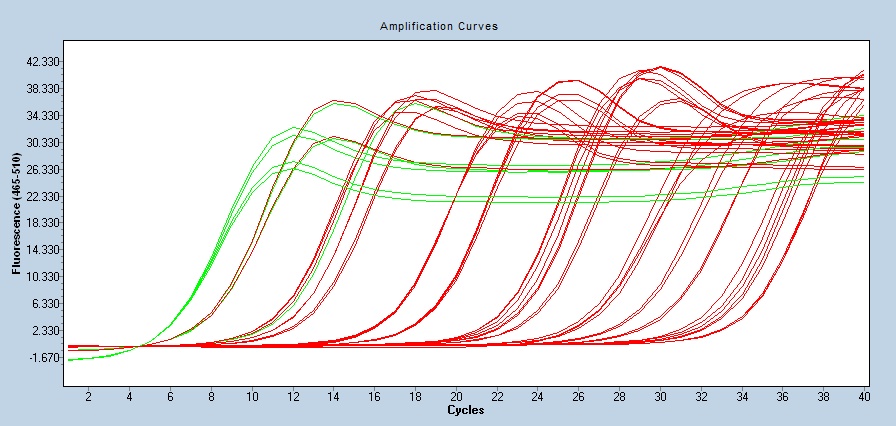
BEL-7402



The amplification plot of Figure 5

B

Hep G2



BEL-7402

