



95°C, 60°C and 72°C for 1min ; total 35 cycle (C) 72°C for 10min. We confirmed the PCR products by 1.5% agarose gel electrophoresis.(figure. 2)

M McA McA  
RH-7777 RH-7777(TK expression)

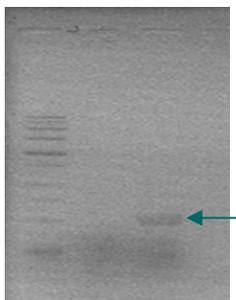


Figure 2. TK gene Expression in McA RH-7777cell detected by using PCR. Gene expression in McA RH-7777cell at 1 days later(Figure 2). as shown Figure 2, transfection of pTK/NI was determined high level tk gene expression and transfection of pEGFP/NI was not determined tk gene expression by RT-PCR at used tk specific primer.

### 2.3 Biodistribution

Mice's tail vein in the anesthetized condition by ether were injected with 40ug of pTK/NI or pEGFP/NI used hydrodynamic-produce. 1day post-injection, in-group of four mice each, carrier-added [<sup>125</sup>I] IVDU was administered into the mice's tail vein. 4hour later, the mice were sacrificed, and the organ of interest and blood were collected, weighed, and radioactivity-using gamma counter. The radioactivity in each organ was expressed as percentage of the injected does. As shown Figure 3, HSV1-TK was high expression in liver.

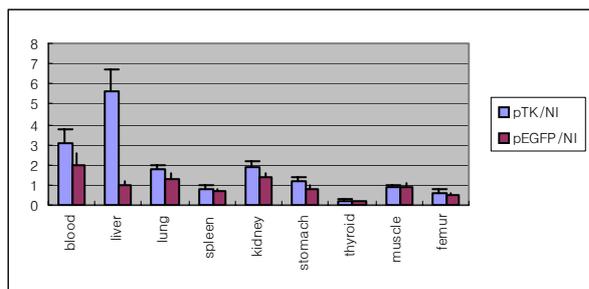


Figure. 3 TK gene Expression in organ detected by using Gamma counter.

### 2.4 Gamma Camera image

mice's tail vein in the anesthetized condition by ether were injected with 40ug of pTK/NI or pEGFP/NI used hydrodynamic-produce. After 1day and 3day, [<sup>125</sup>I] IVDU (50uci/100ul) injected by mice's tail vein. Immediately 2hours later, the mice were imaged by gamma camera.

In gamma camera images, <sup>125</sup>IVDU uptake was selectively localized at 1 day and at 3 day, and 1day

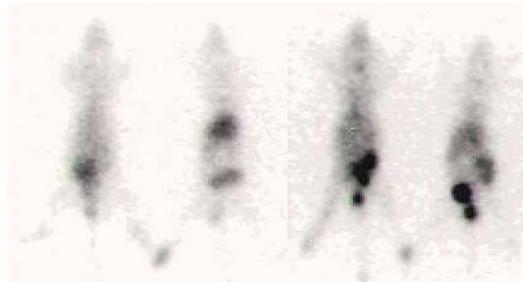


Figure. 4 TK gene Expression in organ detected by using Gamma camera.

uptake of liver of pTK/NI injected mice was more accumulated 3 day uptake in liver of pTK/NI injected mice. <sup>125</sup>IVDU showed minimal uptake in liver of pEGFP/NI injected mice.

### 3. Conclusions

<sup>125</sup>IVDU uptake in liver of pTK/NI injected mice was higher than that of pEGFP/NI injected mice and was selectively localized in gamma camera image. These results suggest that <sup>125</sup>IVDU could be used for the expression of pTK/NI in gamma camera image.

### 4. Reference

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