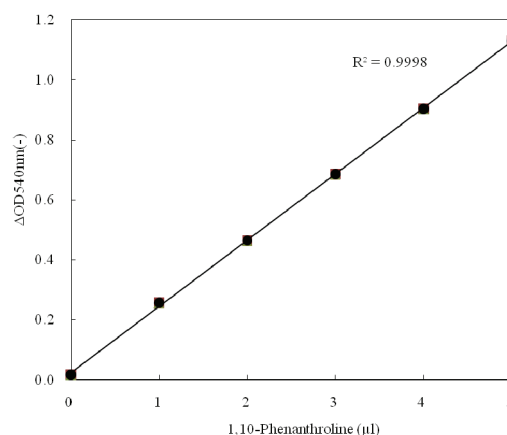




**Table 2** : Liquid color change after contamination of liquid I and II

	Liquid I Fe <sup>2+</sup> Volume	Liquid II Pnenanthroline Volume
	300µl	0µl
	0µl	300µl
	300µl	1µl
	1µl	300µl
	300µl	2µl
	2µl	300µl
	300µl	3µl
	3µl	300µl
	300µl	4µl
	4µl	300µl
	300µl	5µl
	5µl	300µl

**Graph 1** : Graph for absorbance at OD540 of mixture of liquid I and II



### 【Evaluation of cross contamination】

The addition of 1µl of liquid II to liquid I increased absorbance by 0.2 at OD 540nm. In the case of the addition of liquid I to liquid II was calculated using molecular concentration ratio of two liquids, which revealed that approximately 0.1µl increased absorbance by 0.2 at OD 540nm.

From these results, it was concluded that contamination should have occurred when the absorbance change was more than 0.2 before and after incubation.

### 【Result】

The absorbance gap between before and after shaking incubation was less than 10% of the pre-set evaluation standard above (Table 3). Then, color change was not observed. These results concluded that RAPID EPS prevented cross contamination (Figure 1). The red coloring spot observed outside wells was because of droplets of liquid I and II clinging to seals dropped on the outside wells, which was not cross contamination.

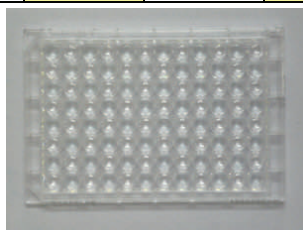
**Table 3** : RAPID EPS: Absorbance difference between before and after incubation at OD540nm

	1	2	3	4	5	6	7	8	9	10	11	12
A	0.016	0.009	0.012	0.016	0.011	0.007	0.010	0.007	0.008	0.003	0.008	0.010
B	0.010	0.015	0.017	0.009	0.010	0.013	0.010	0.012	0.014	0.009	0.009	0.011
C	0.016	0.011	0.016	0.009	0.017	0.013	0.009	0.011	0.012	0.006	0.010	0.004
D	0.009	0.014	0.008	0.008	0.011	0.013	0.013	0.016	0.007	0.008	0.000	0.013
E	0.011	0.010	0.015	0.017	0.010	0.010	0.015	0.009	0.015	0.004	0.010	0.003
F	0.014	0.013	0.014	0.011	0.015	0.011	0.012	0.011	0.012	0.011	0.008	0.017
G	0.010	0.014	0.009	0.011	0.015	0.015	0.017	0.017	0.009	0.010	0.011	0.006
H	0.015	0.008	0.013	0.013	0.008	0.012	0.006	0.009	0.001	0.011	0.001	0.011

**Figure 1** : Coloring comparison

No cross contamination from the absorbance and direct observation

Before



After

