

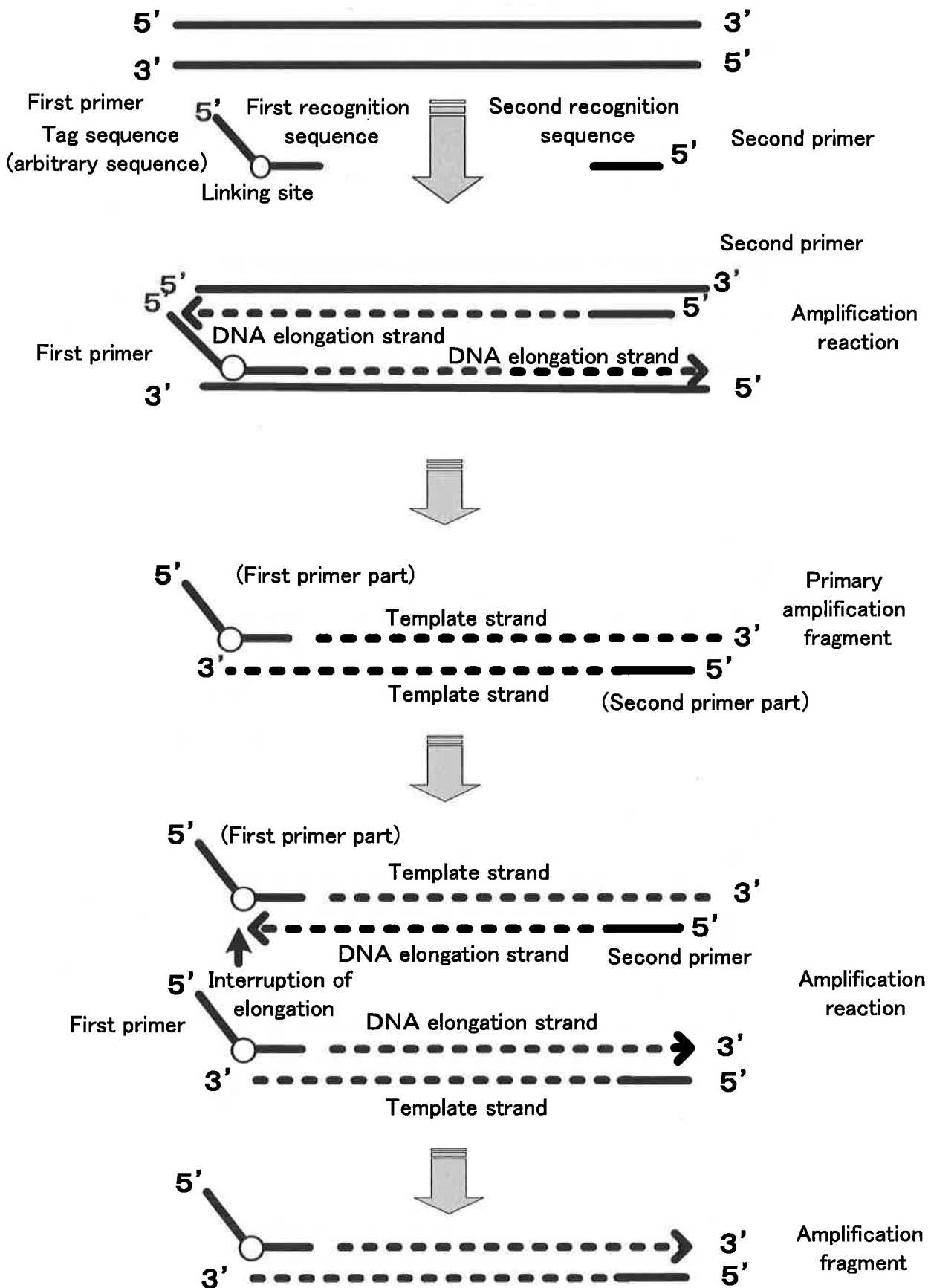


Fig. 1A

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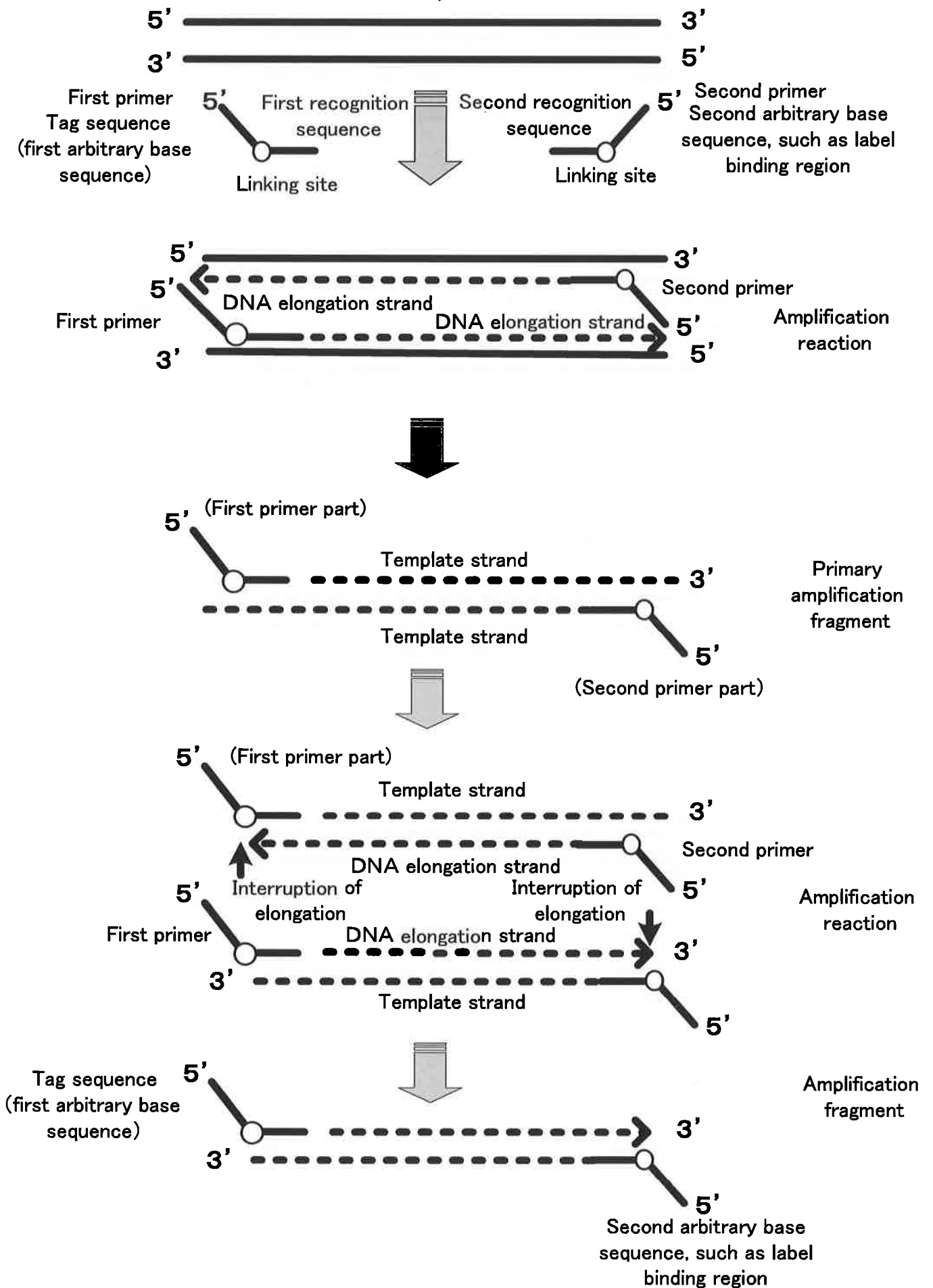


Fig. 1B

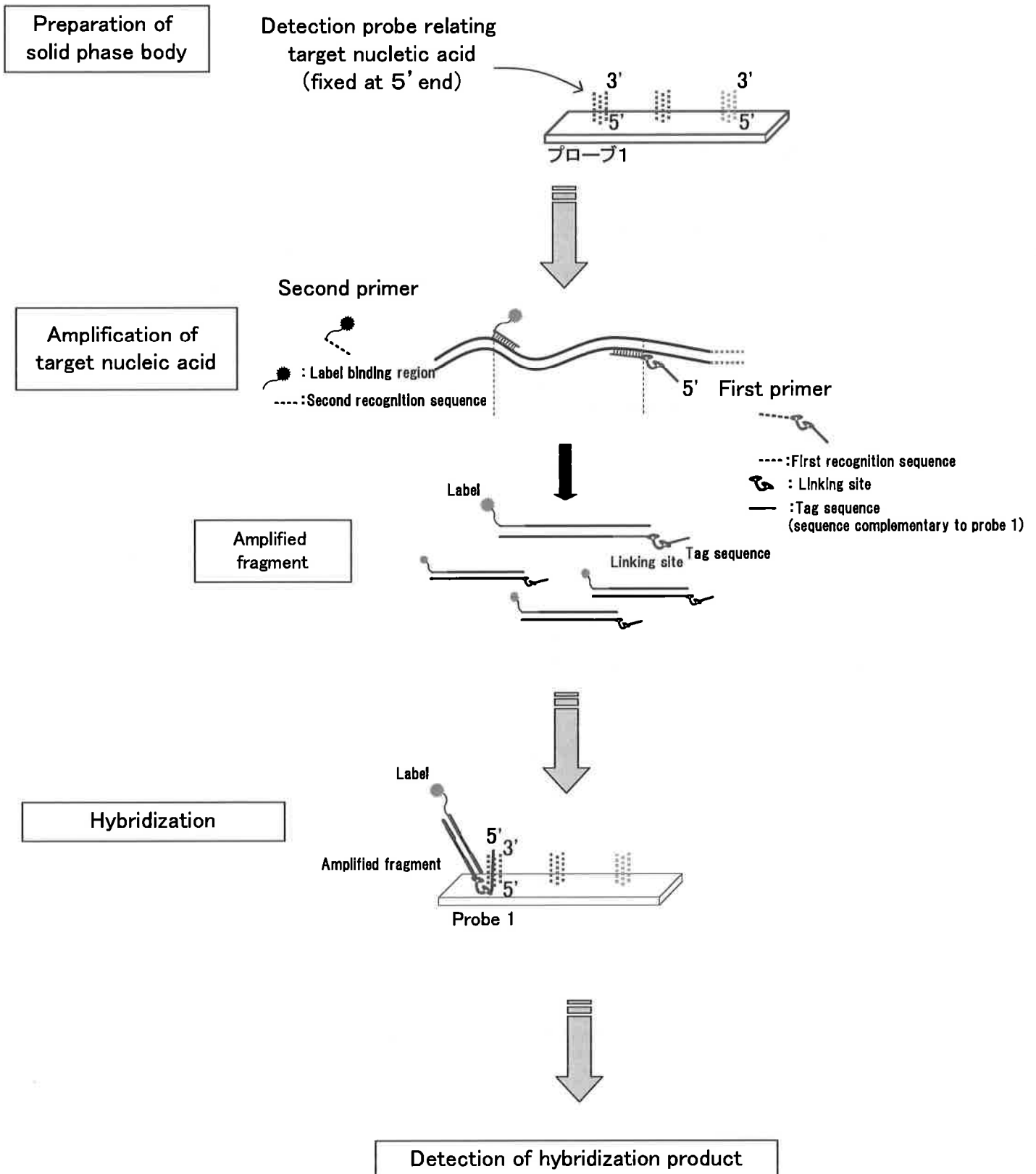


Fig.2A

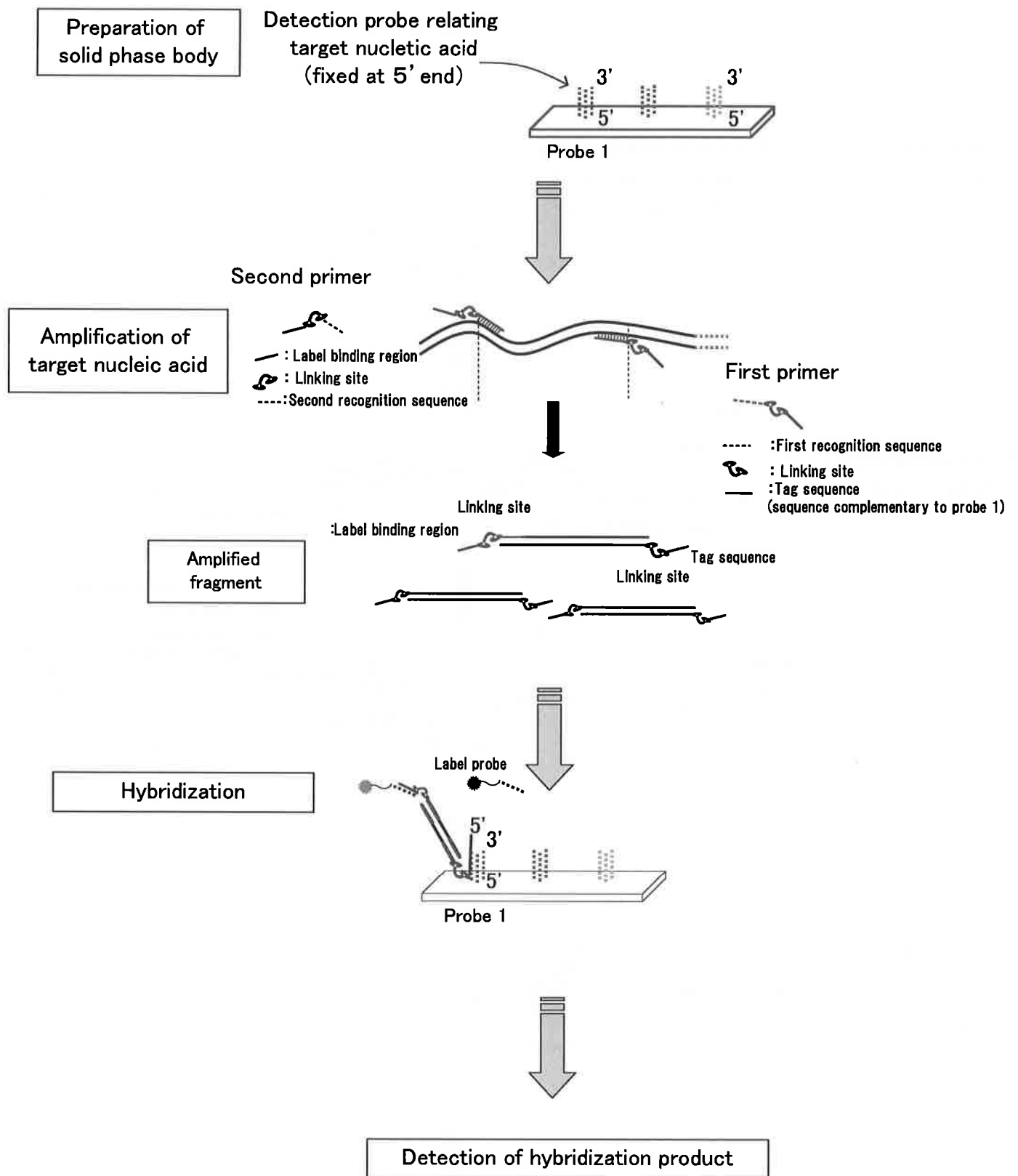


Fig.2B

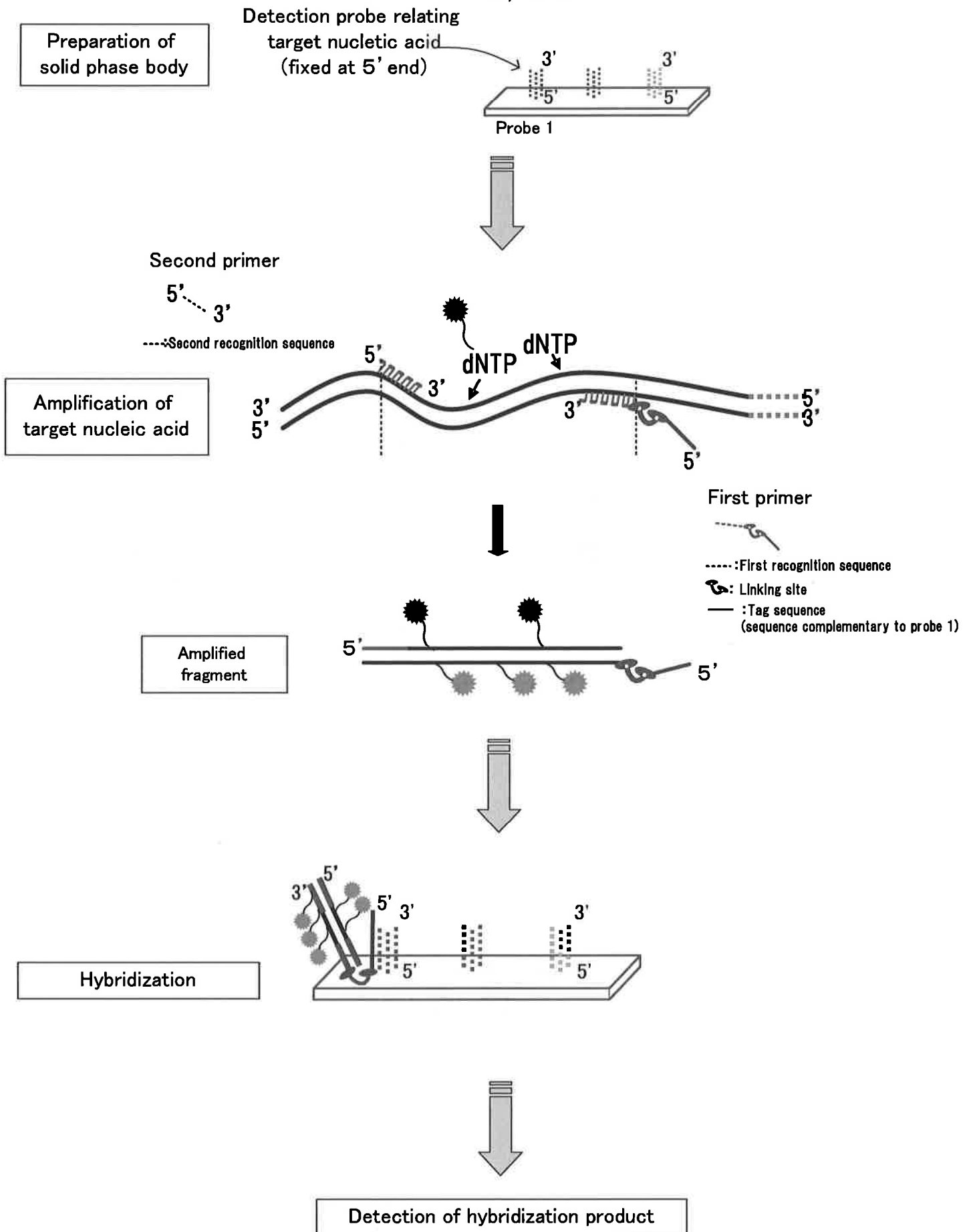


Fig.2C

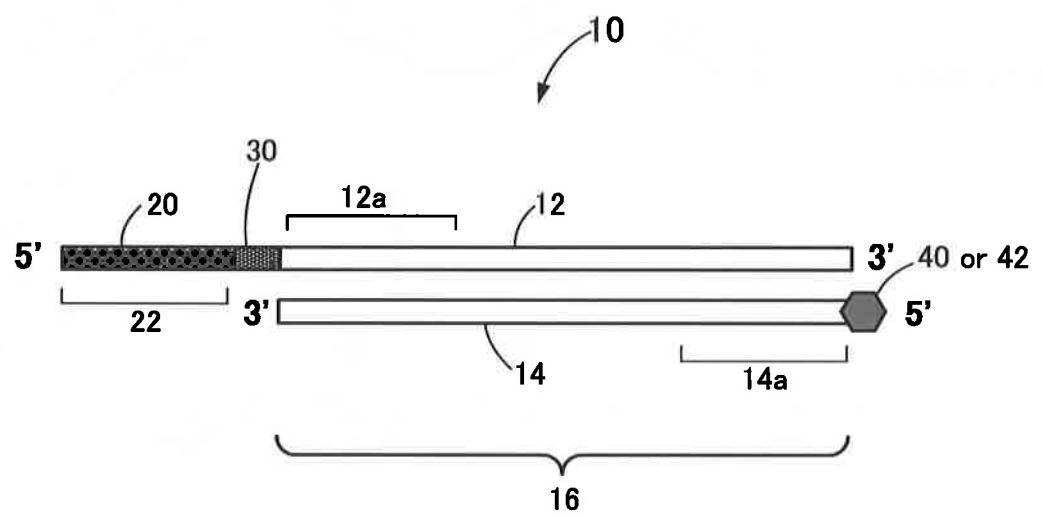


Fig. 3

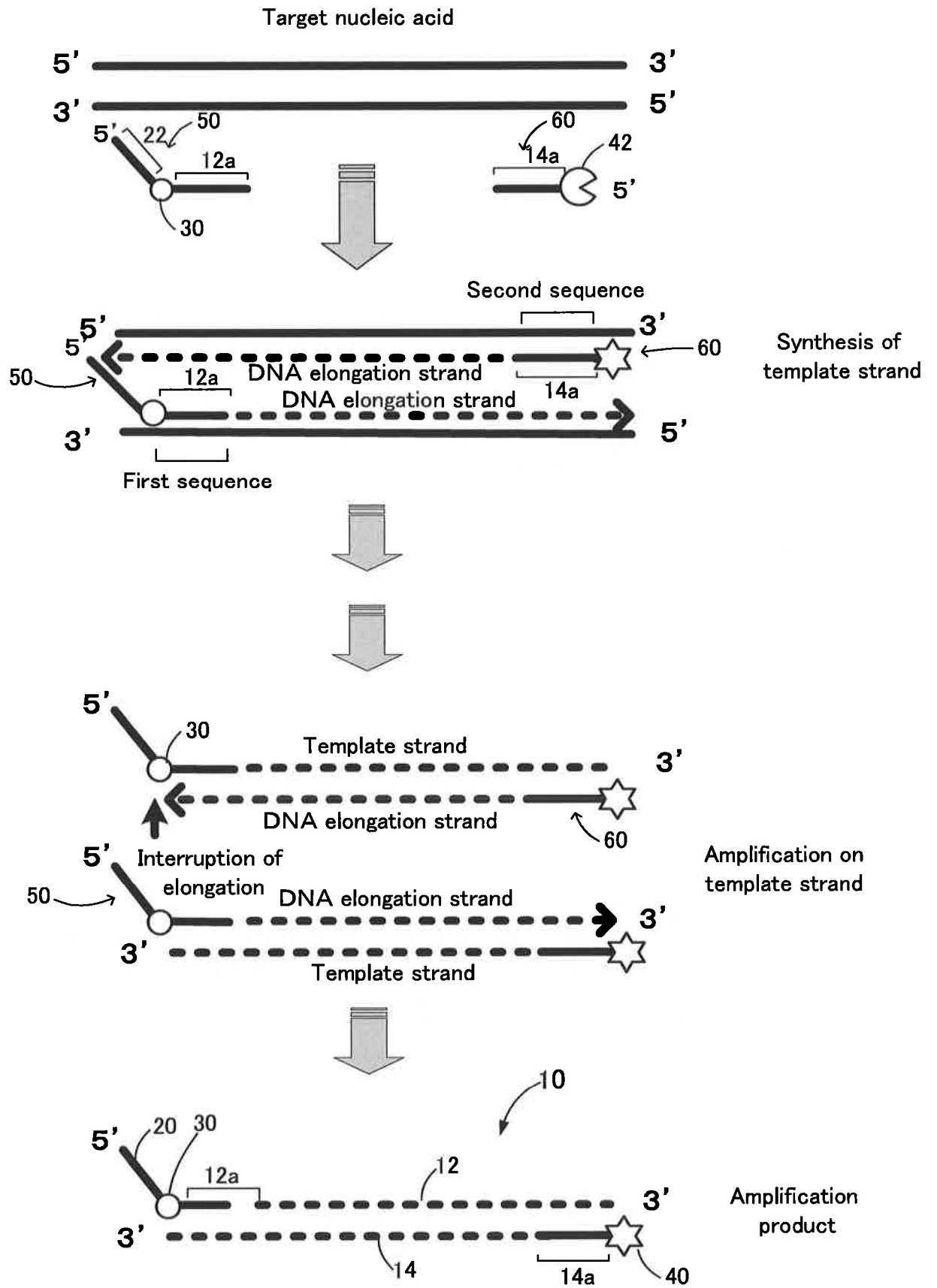


Fig.4

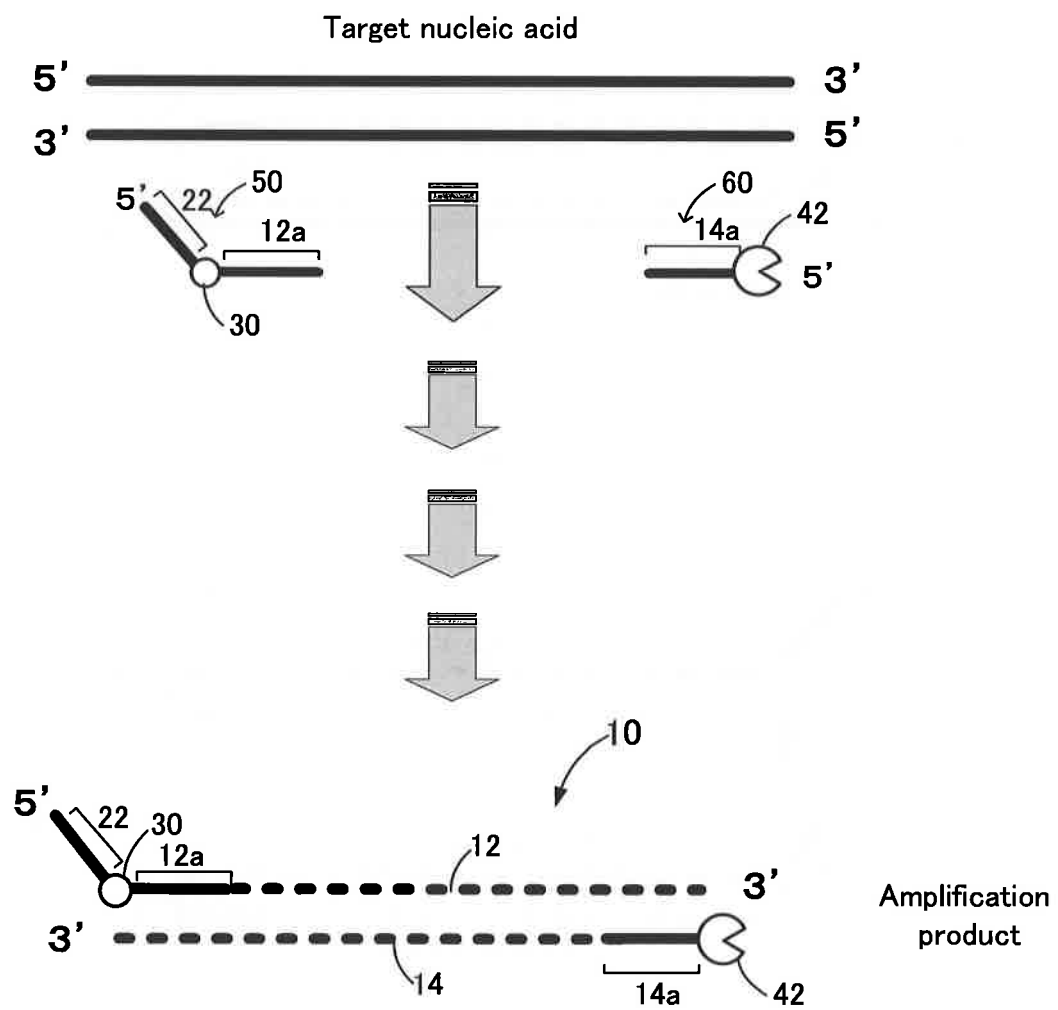


Fig.5

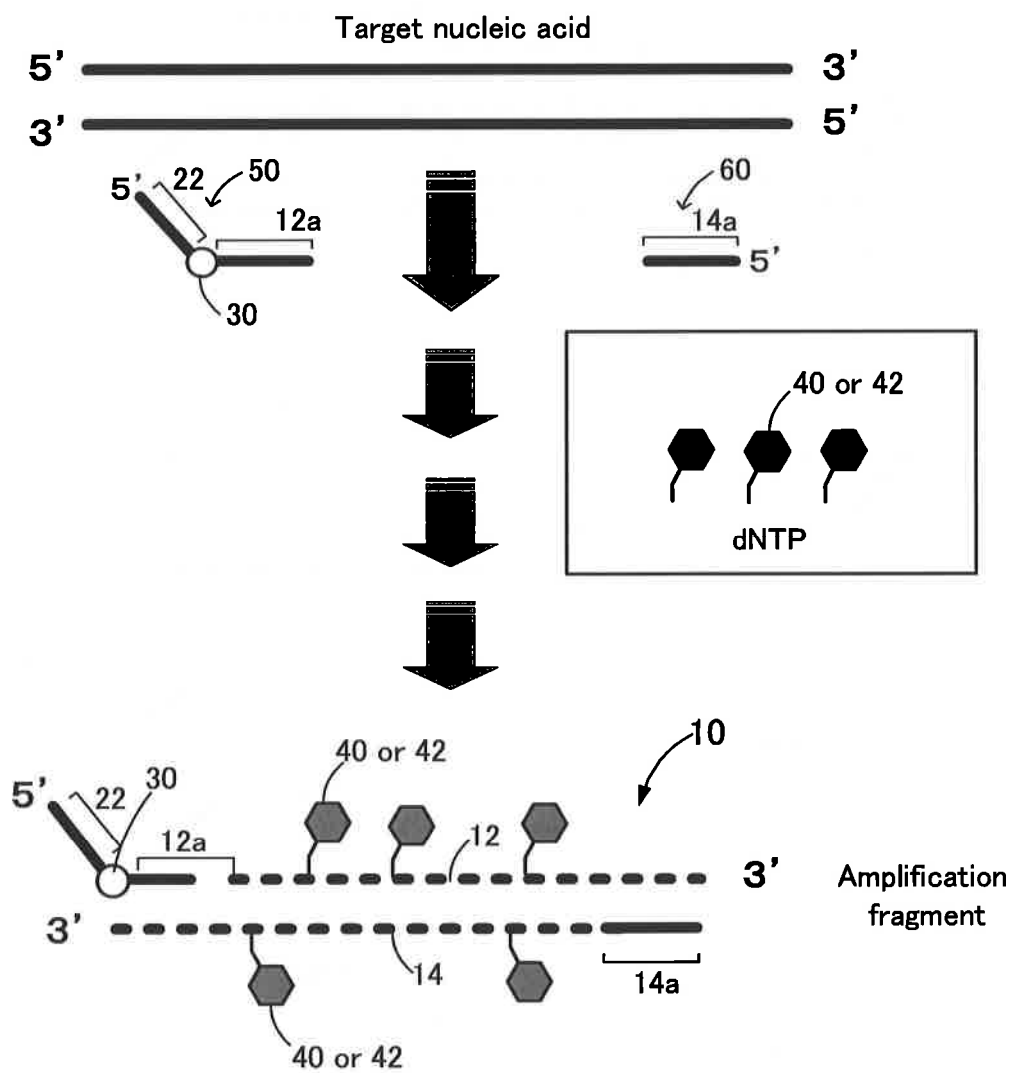


Fig.6

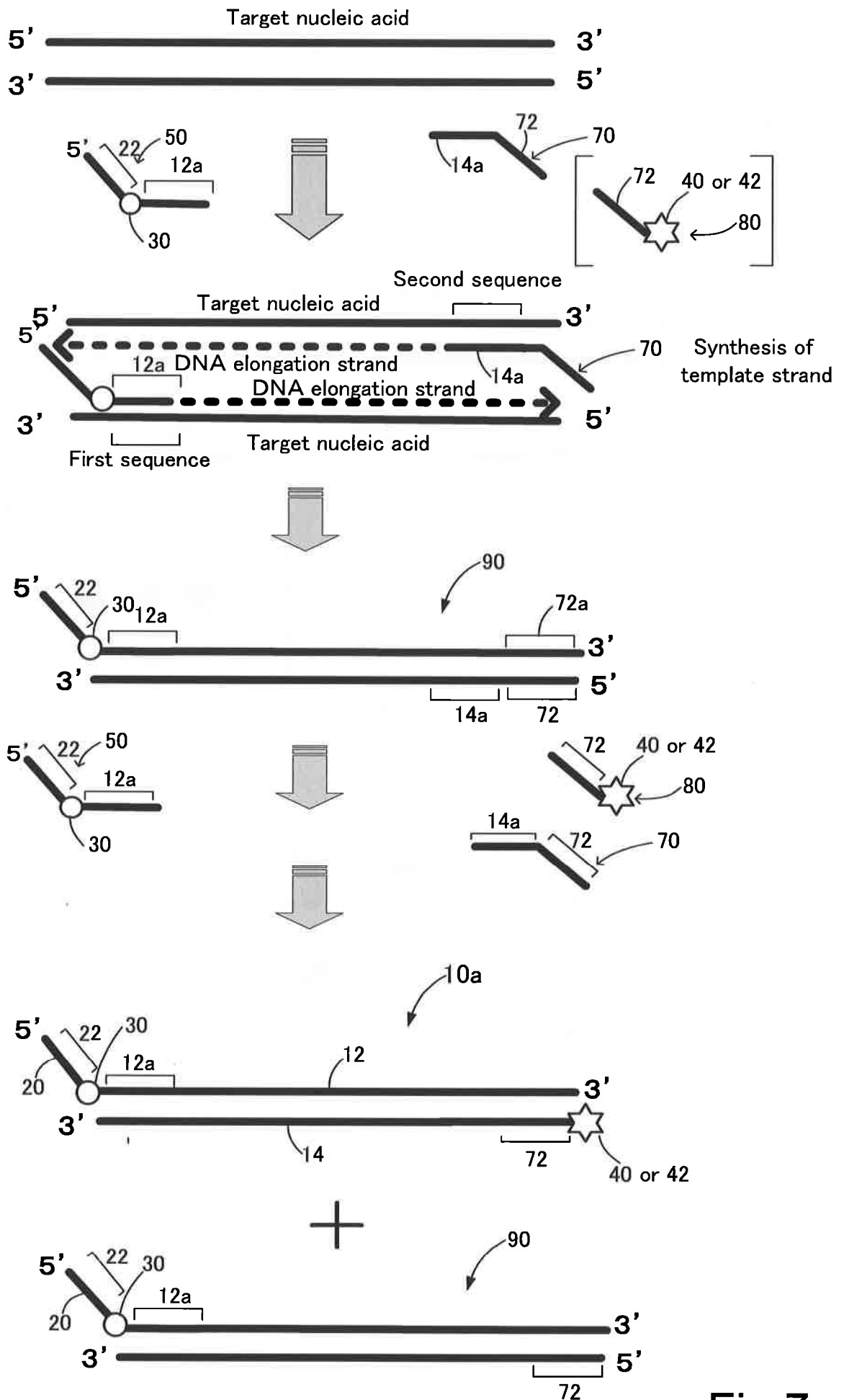


Fig.7



Fig.8

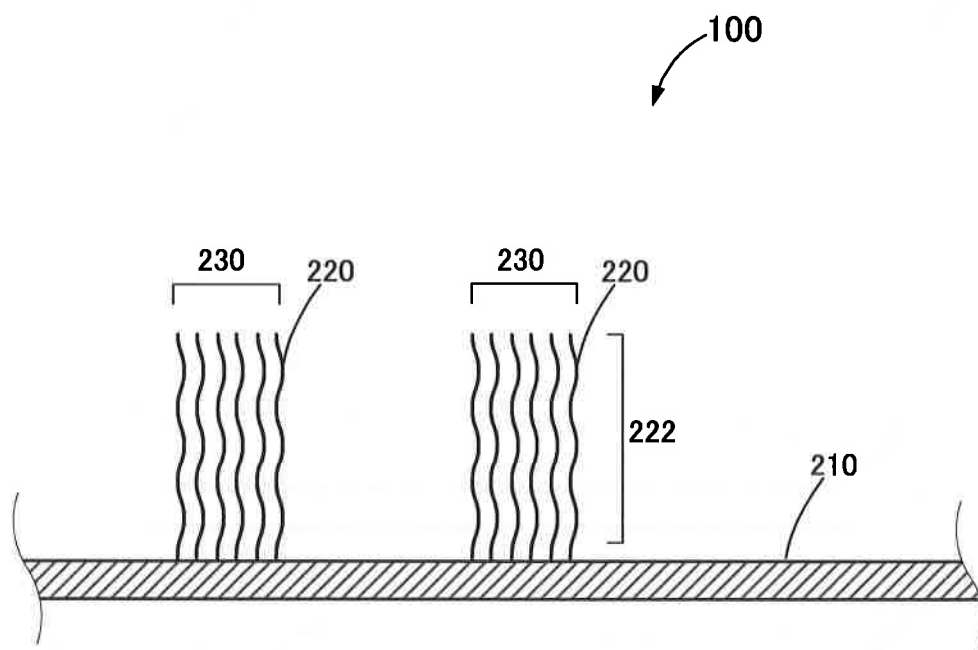


Fig.9

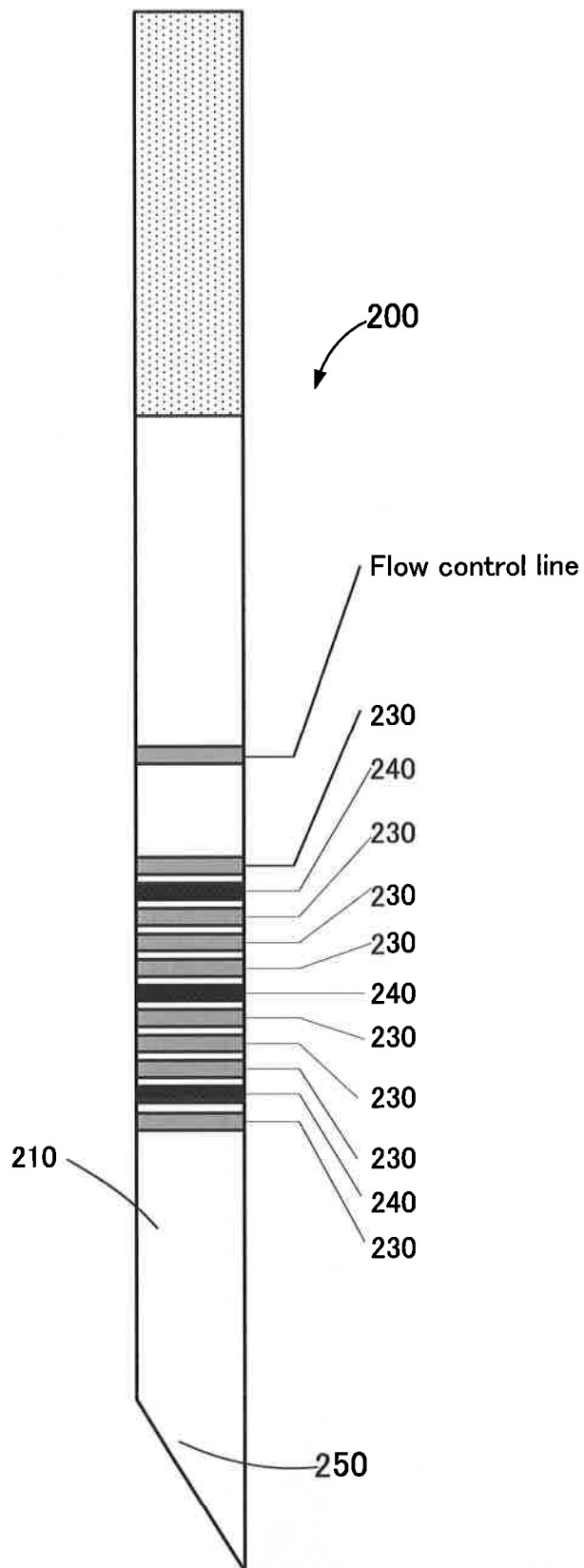


Fig.10

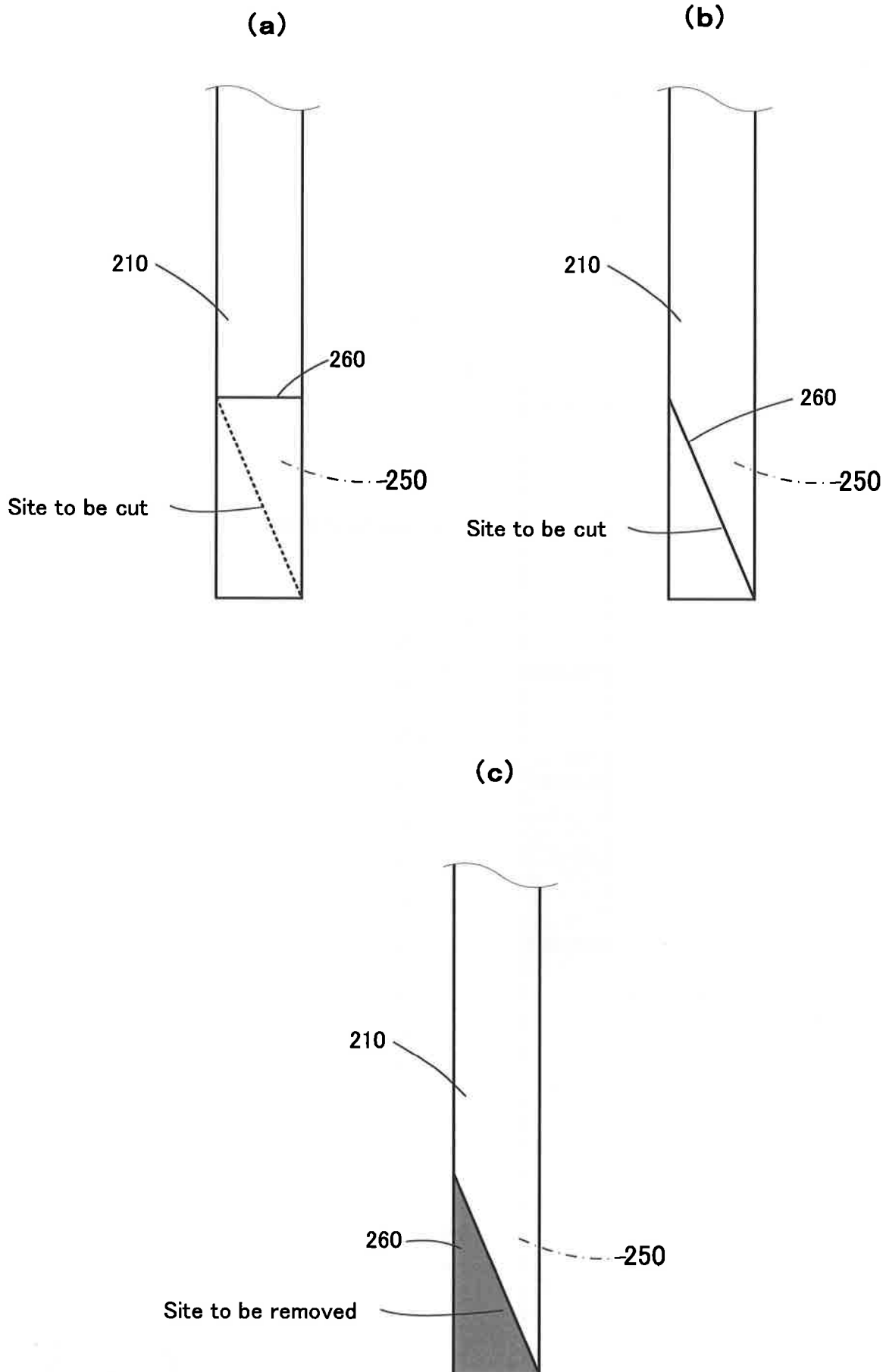


Fig.11

Evaluation of common tag linking method to primer

Image of electrophoresis after PCR Amplification/ column purification



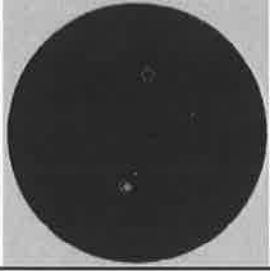
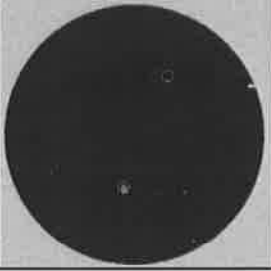
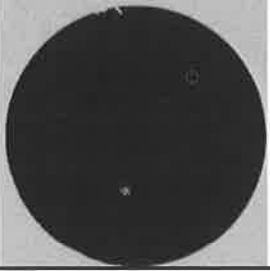
Amount after PCR Amplification/ column purification (amplification was started 25ng/reaction)

primer \ No.		(1) (SNP01)	(2) (SNP03)	(3) (SNP07)	(4) (SNP08)	(5) (SNP09)	(6) (SNP20)
Tag absent: P1		253	308	134	239	162	219
Tag present	P2	156	205	163	266	134	161
	P3	124	209	178	144	140	104

(Unit: ng)

Fig.12

Evaluation of common tag linking method to primer

Tag /method	Tag present/ Direct linking		
primer	(1) + tag 01	(2) + tag 02	(3) + tag 03
Result			

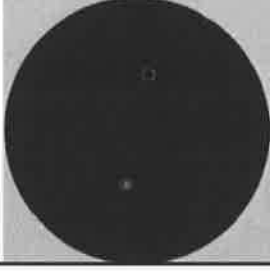
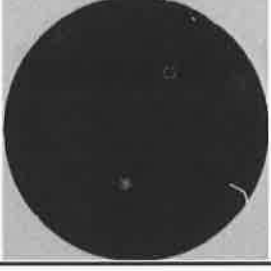
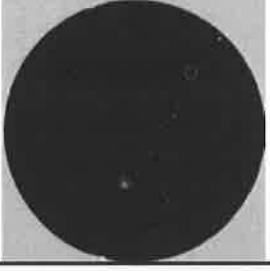
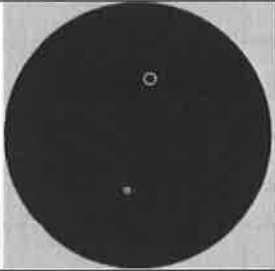
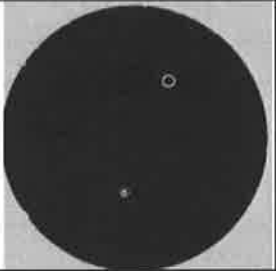
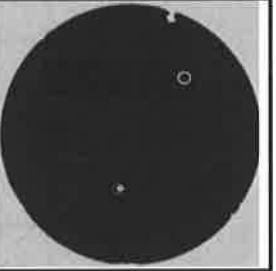
Tag /method	Tag present/ Linking via C3 linking site		
primer	(1)+C3+ tag 01	(2)+C3+ tag 02	(3)+C3+ tag 03
Result			

Fig.13

Evaluation of common tag linking method to primer

Tag /method	Tag present/ Direct linking		
primer	(4)+ tag 04	(5)+ tag 05	(6)+ tag 06
Result			

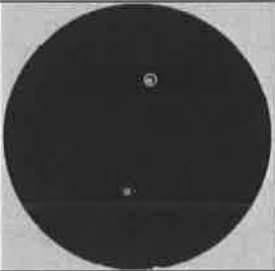
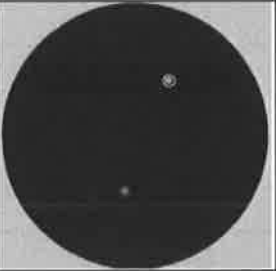
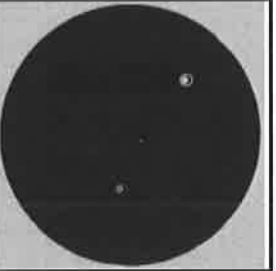
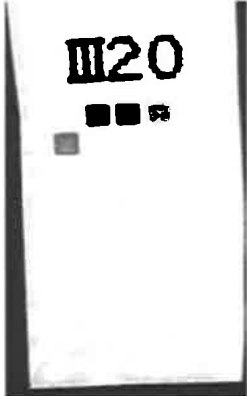
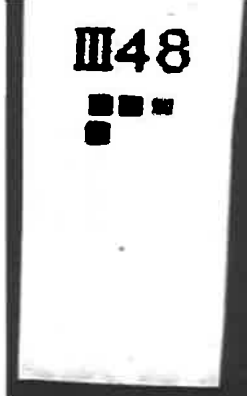
Tag /method	Tag present/ Linking via C3 linking site		
primer	(4)+C3+ tag 04	(5)+C3+ tag 05	(6)+C3+ tag 06
Result			

Fig.14

D1-100	Sample 1	Marker	Sample 2	D1-100
D1-001	D1-002	D1-003	D1-005	D1-006
D1-009	D1-010	D1-011	D1-012	D1-014
D1-015	D1-016	D1-020	D1-023	D1-025
D1-026	D1-027	D1-030	D1-032	D1-035
D1-037	D1-038	D1-040	D1-041	D1-044
D1-045	D1-049	D1-050	D1-051	D1-052
D1-053	D1-062	D1-064	D1-065	D1-077
D1-079	D1-081	D1-084	D1-089	D1-090
D1-100	D1-094	D1-095	D1-097	D1-100

Fig.15

Existing method result	New method result	Expected color site																																												
P2-1 product 	P3-1 product 	<table><tr><th>D1-100</th><th>S1</th><th>M</th><th>S</th></tr><tr><td>D1-001</td><td>D1-002</td><td>D1-003</td><td>D1-004</td></tr><tr><td>D1-005</td><td>D1-010</td><td>D1-011</td><td>D1-012</td></tr><tr><td>D1-013</td><td>D1-018</td><td>D1-020</td><td>D1-021</td></tr><tr><td>D1-022</td><td>D1-027</td><td>D1-030</td><td>D1-031</td></tr><tr><td>D1-037</td><td>D1-038</td><td>D1-040</td><td>D1-041</td></tr><tr><td>D1-043</td><td>D1-045</td><td>D1-046</td><td>D1-047</td></tr><tr><td>D1-050</td><td>D1-052</td><td>D1-054</td><td>D1-055</td></tr><tr><td>D1-059</td><td>D1-061</td><td>D1-064</td><td>D1-065</td></tr><tr><td>D1-069</td><td>D1-074</td><td>D1-075</td><td>D1-076</td></tr><tr><td>D1-100</td><td>D1-084</td><td>D1-090</td><td>D1-091</td></tr></table>	D1-100	S1	M	S	D1-001	D1-002	D1-003	D1-004	D1-005	D1-010	D1-011	D1-012	D1-013	D1-018	D1-020	D1-021	D1-022	D1-027	D1-030	D1-031	D1-037	D1-038	D1-040	D1-041	D1-043	D1-045	D1-046	D1-047	D1-050	D1-052	D1-054	D1-055	D1-059	D1-061	D1-064	D1-065	D1-069	D1-074	D1-075	D1-076	D1-100	D1-084	D1-090	D1-091
D1-100	S1	M	S																																											
D1-001	D1-002	D1-003	D1-004																																											
D1-005	D1-010	D1-011	D1-012																																											
D1-013	D1-018	D1-020	D1-021																																											
D1-022	D1-027	D1-030	D1-031																																											
D1-037	D1-038	D1-040	D1-041																																											
D1-043	D1-045	D1-046	D1-047																																											
D1-050	D1-052	D1-054	D1-055																																											
D1-059	D1-061	D1-064	D1-065																																											
D1-069	D1-074	D1-075	D1-076																																											
D1-100	D1-084	D1-090	D1-091																																											
P2-2 product 	P3-2 product 	<table><tr><th>D1-100</th><th>S1</th><th>M</th><th>S</th></tr><tr><td>D1-001</td><td>D1-002</td><td>D1-003</td><td>D1-004</td></tr><tr><td>D1-005</td><td>D1-010</td><td>D1-011</td><td>D1-012</td></tr><tr><td>D1-013</td><td>D1-018</td><td>D1-020</td><td>D1-021</td></tr><tr><td>D1-022</td><td>D1-027</td><td>D1-030</td><td>D1-031</td></tr><tr><td>D1-037</td><td>D1-038</td><td>D1-040</td><td>D1-041</td></tr><tr><td>D1-043</td><td>D1-045</td><td>D1-046</td><td>D1-047</td></tr><tr><td>D1-050</td><td>D1-052</td><td>D1-054</td><td>D1-055</td></tr><tr><td>D1-059</td><td>D1-061</td><td>D1-064</td><td>D1-065</td></tr><tr><td>D1-069</td><td>D1-074</td><td>D1-075</td><td>D1-076</td></tr><tr><td>D1-100</td><td>D1-084</td><td>D1-090</td><td>D1-091</td></tr></table>	D1-100	S1	M	S	D1-001	D1-002	D1-003	D1-004	D1-005	D1-010	D1-011	D1-012	D1-013	D1-018	D1-020	D1-021	D1-022	D1-027	D1-030	D1-031	D1-037	D1-038	D1-040	D1-041	D1-043	D1-045	D1-046	D1-047	D1-050	D1-052	D1-054	D1-055	D1-059	D1-061	D1-064	D1-065	D1-069	D1-074	D1-075	D1-076	D1-100	D1-084	D1-090	D1-091
D1-100	S1	M	S																																											
D1-001	D1-002	D1-003	D1-004																																											
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D1-037	D1-038	D1-040	D1-041																																											
D1-043	D1-045	D1-046	D1-047																																											
D1-050	D1-052	D1-054	D1-055																																											
D1-059	D1-061	D1-064	D1-065																																											
D1-069	D1-074	D1-075	D1-076																																											
D1-100	D1-084	D1-090	D1-091																																											

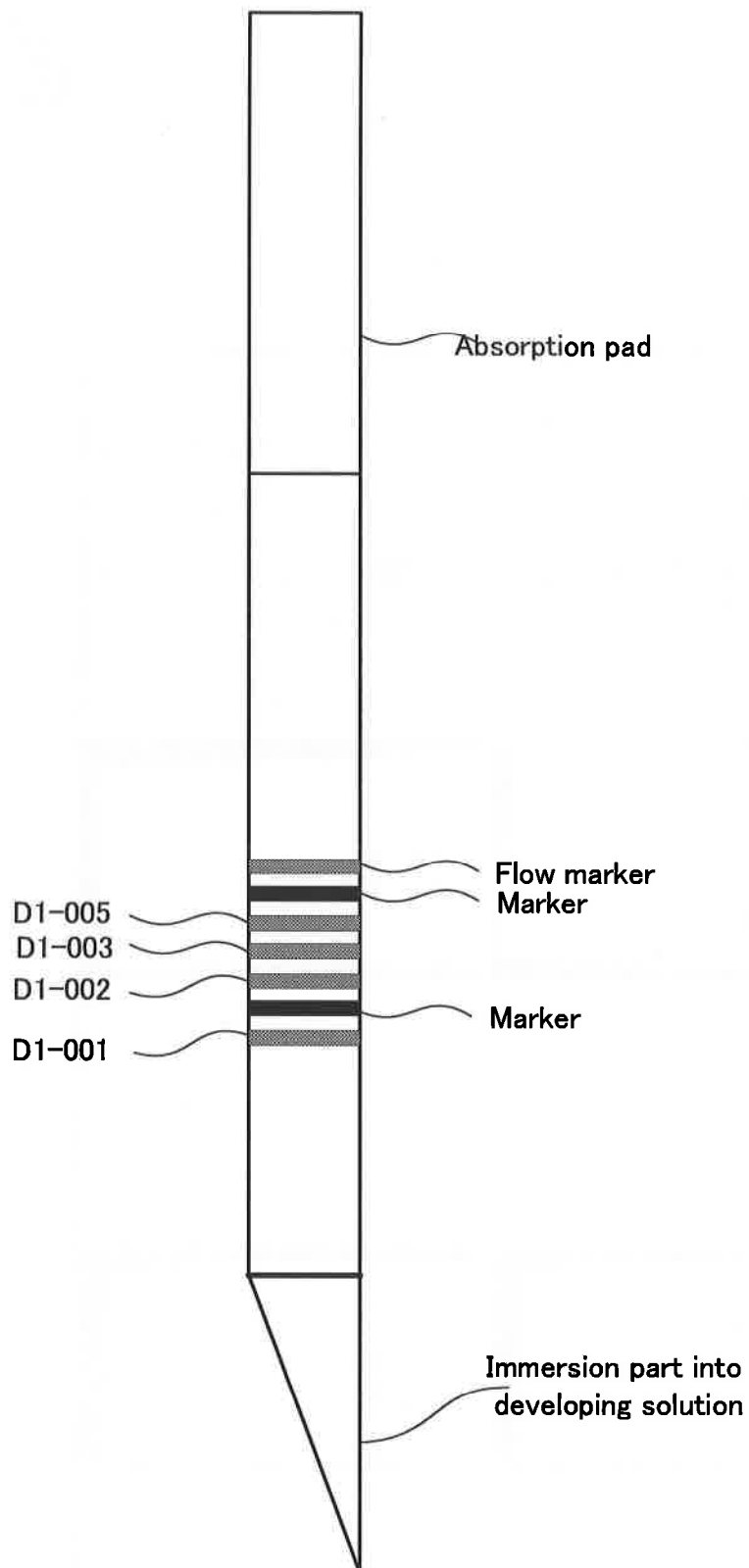


Fig.17

Existing method Result	New method Result	Expected coloring site
Fragment 2-① 	Fragment 3-① 	 Coloring site (control) Coloring site (expeted) Cutting line marker
Fragment 2-② 	Fragment 3-② 	 Coloring site (control) Coloring site (expeted) Cutting line marker

Fig.18

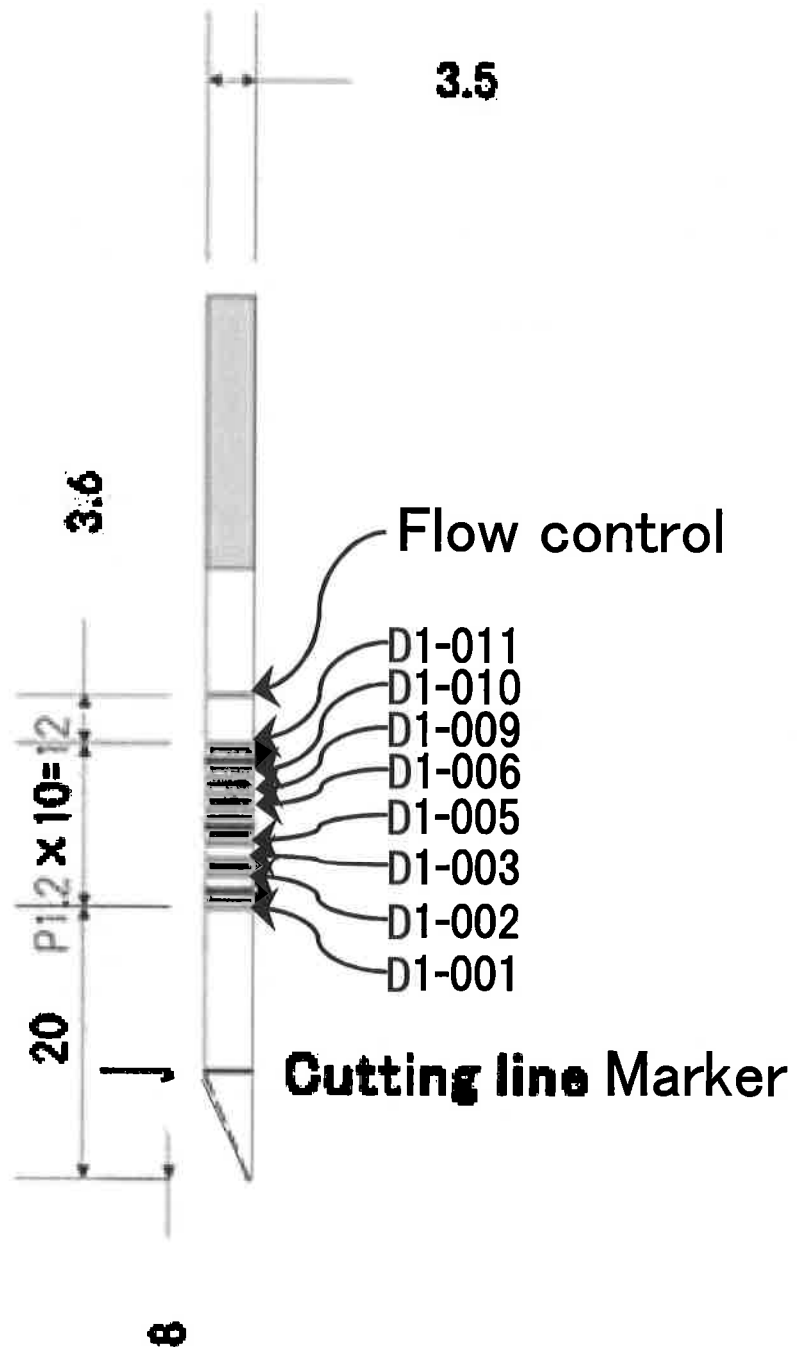


Fig.19

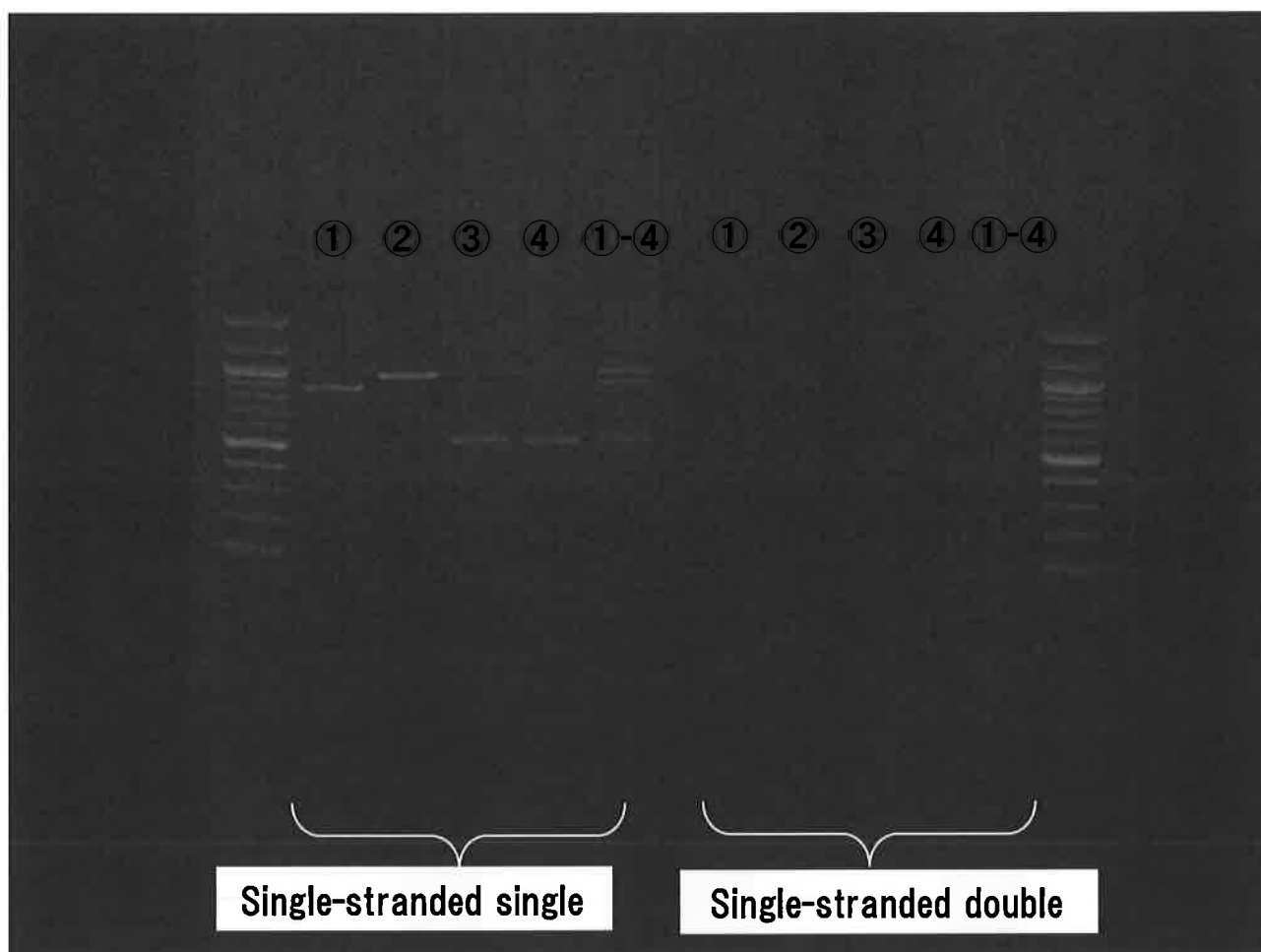


Fig.20

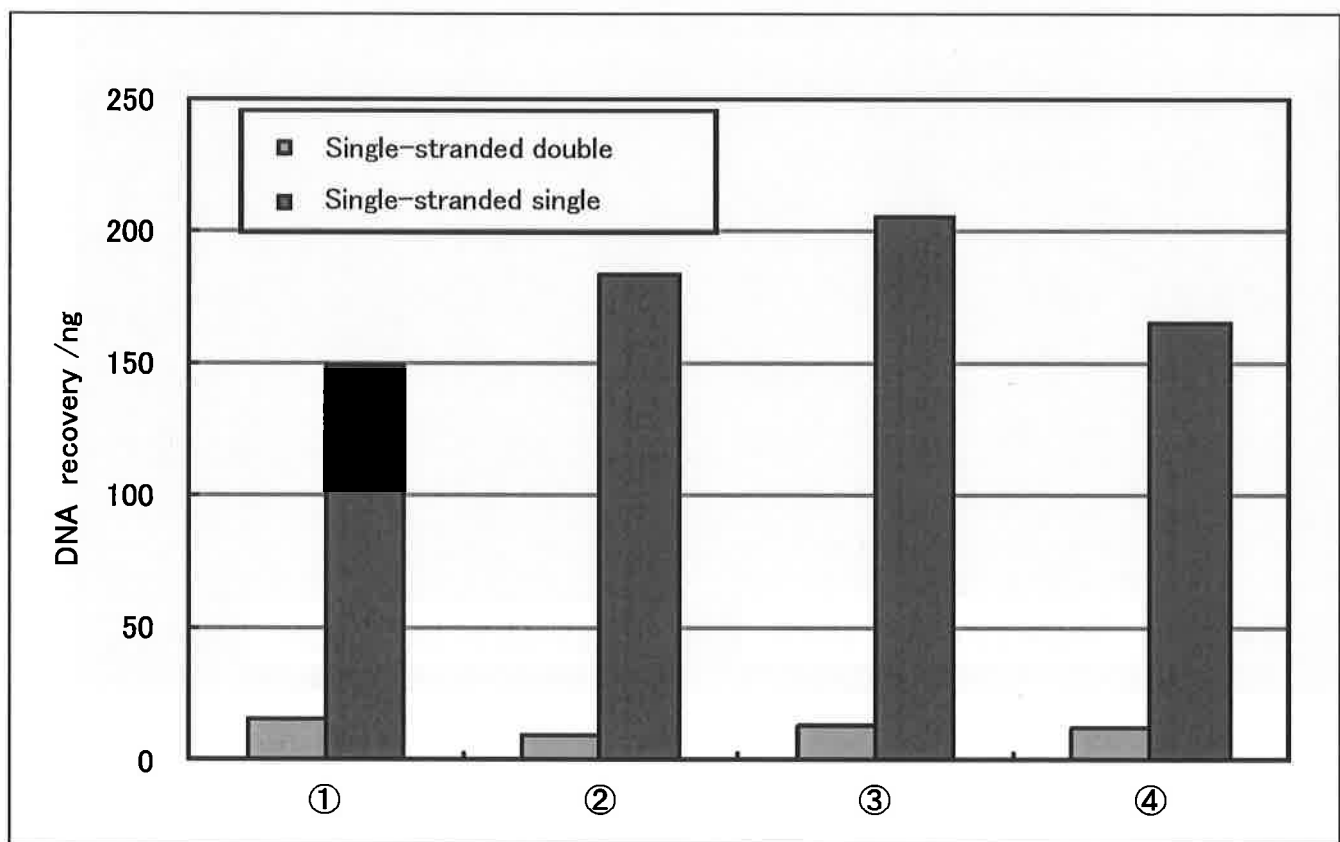
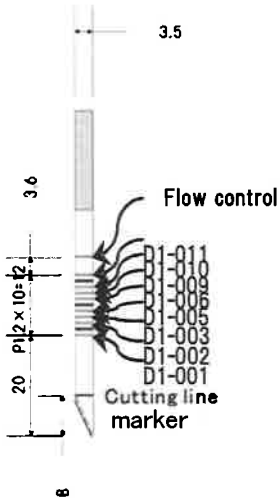
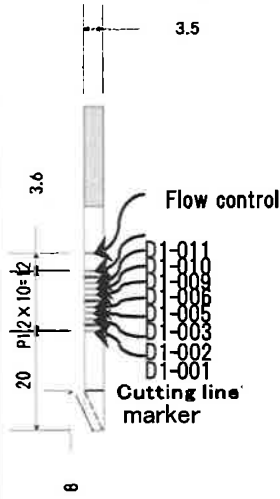


Fig.21

Fig.22

Single-stranded double F-Tag R- Label tag		Double 1	Double 2	Double 3	D
					
Single-stranded single F-Tag R- Label tag		Single 1	Single 2	Single 3	Si
					

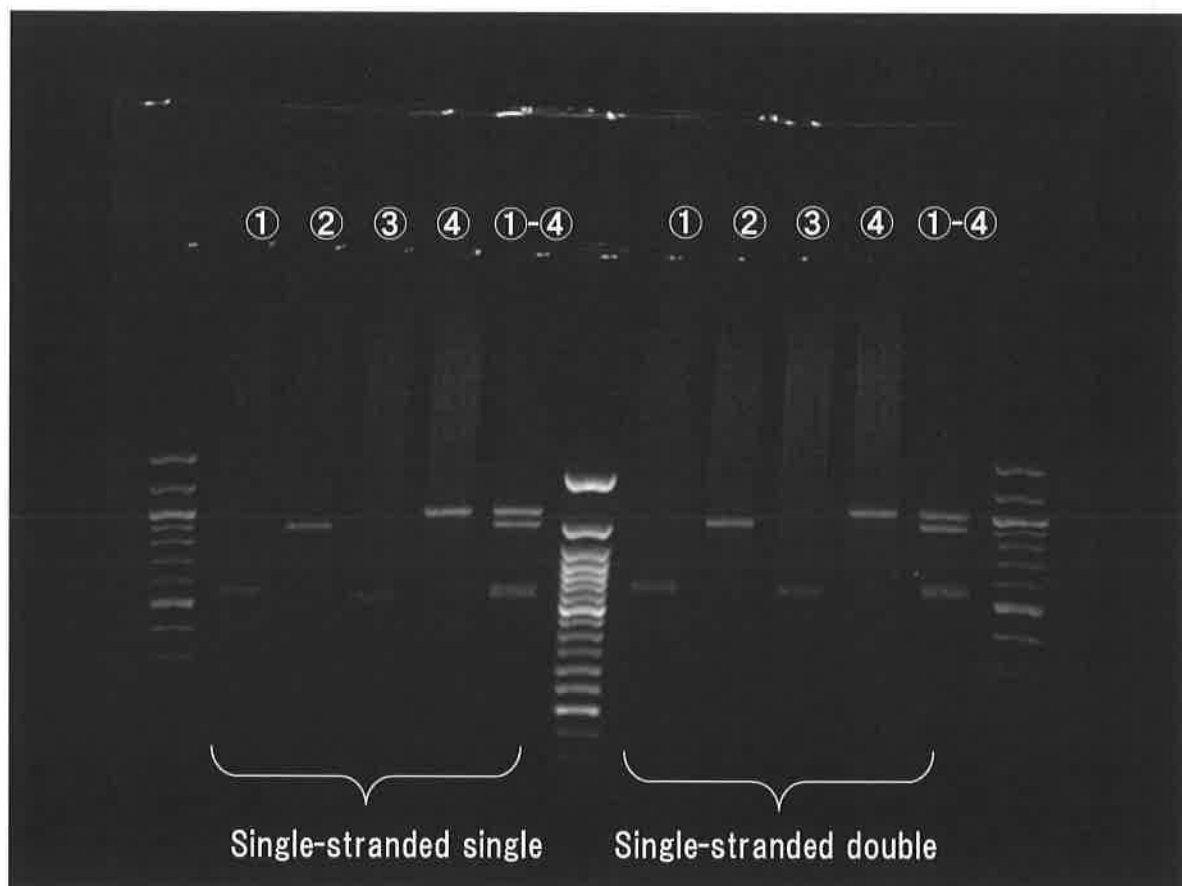


Fig.23

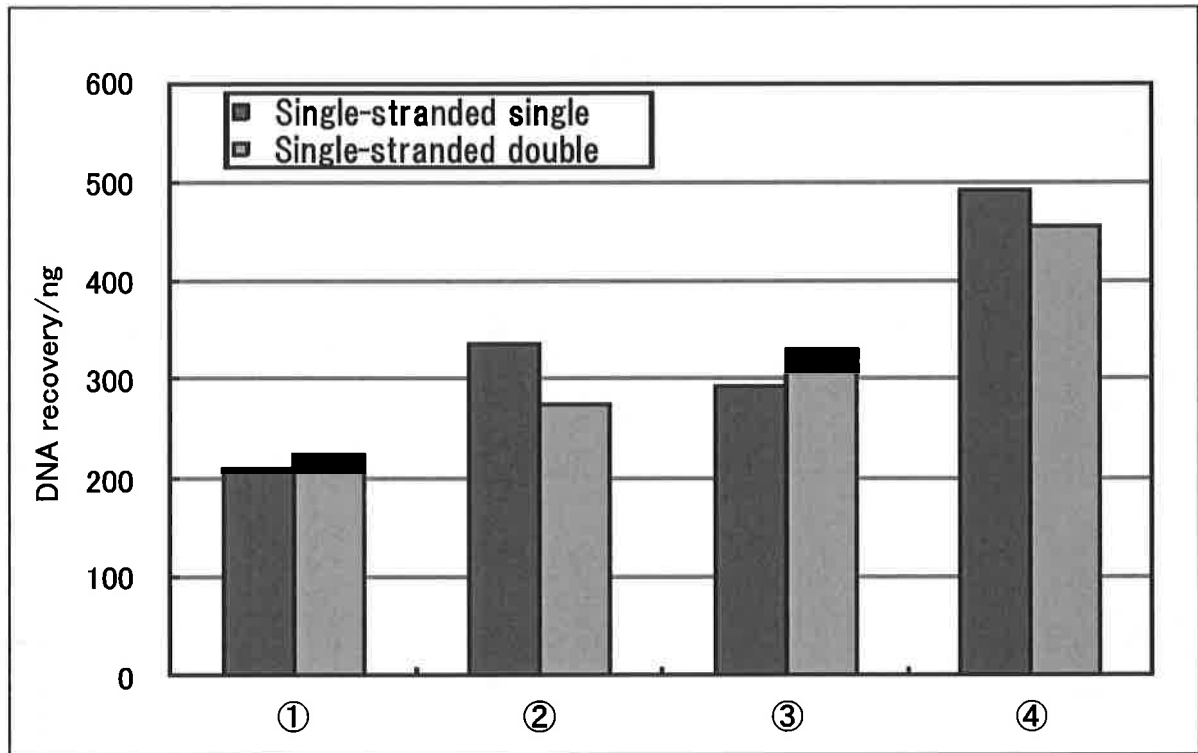
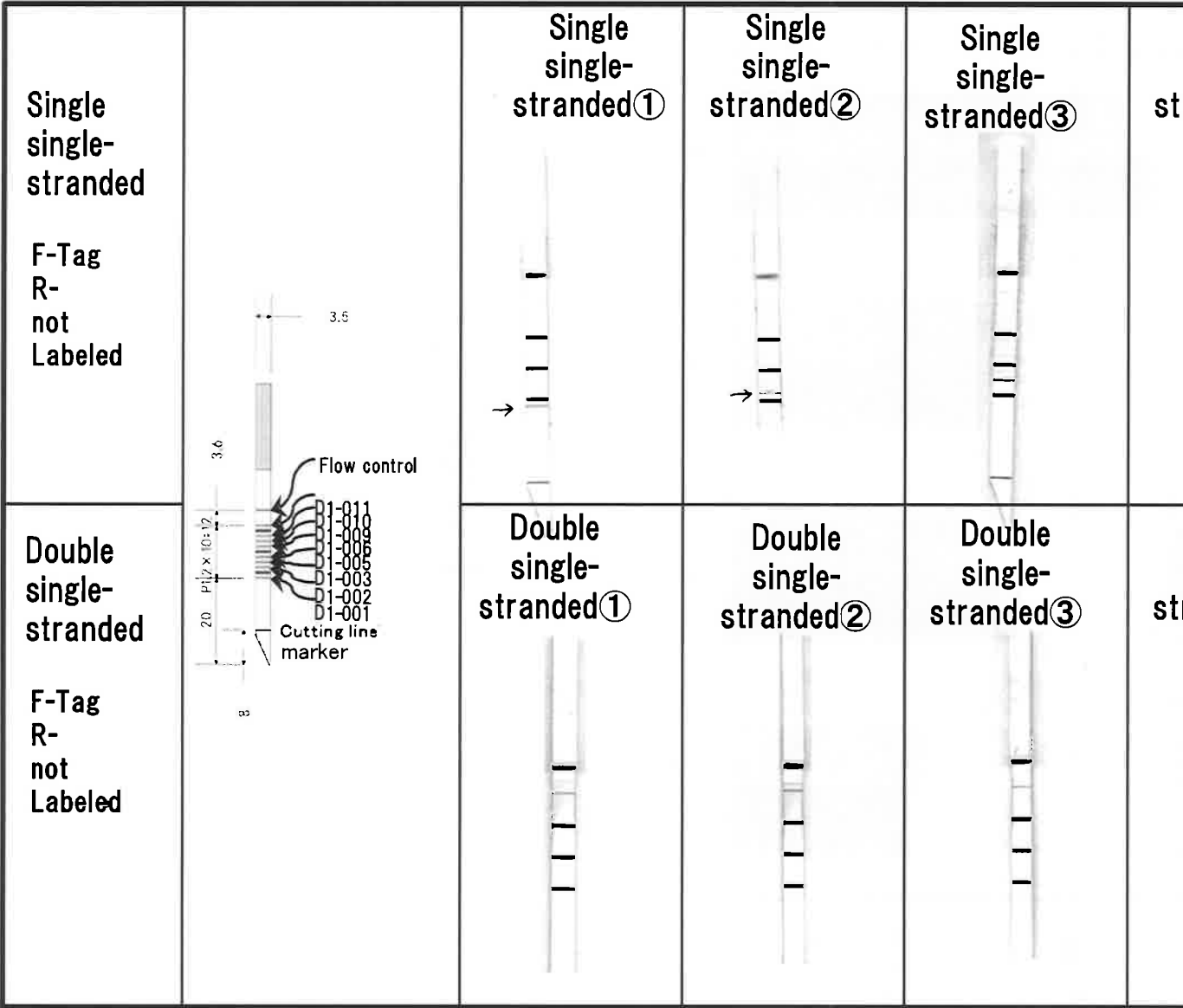


Fig.24

Fig.25



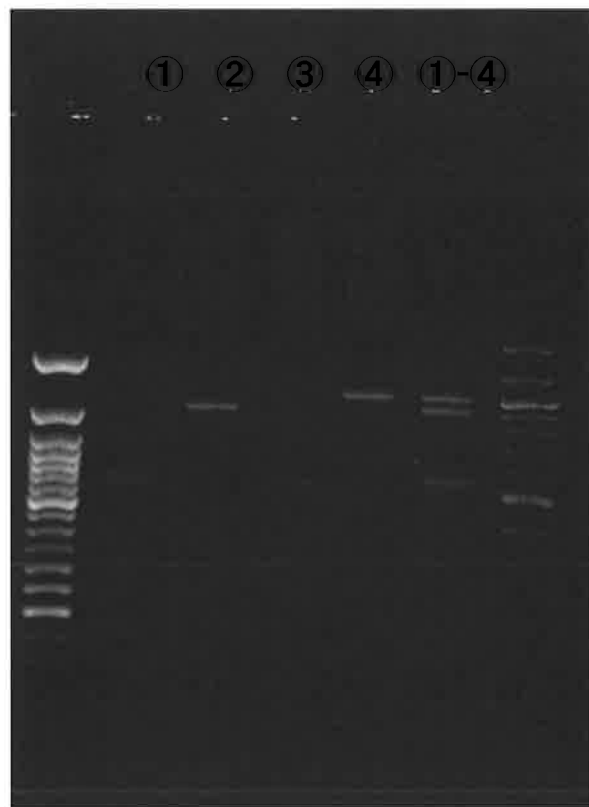


Fig.26

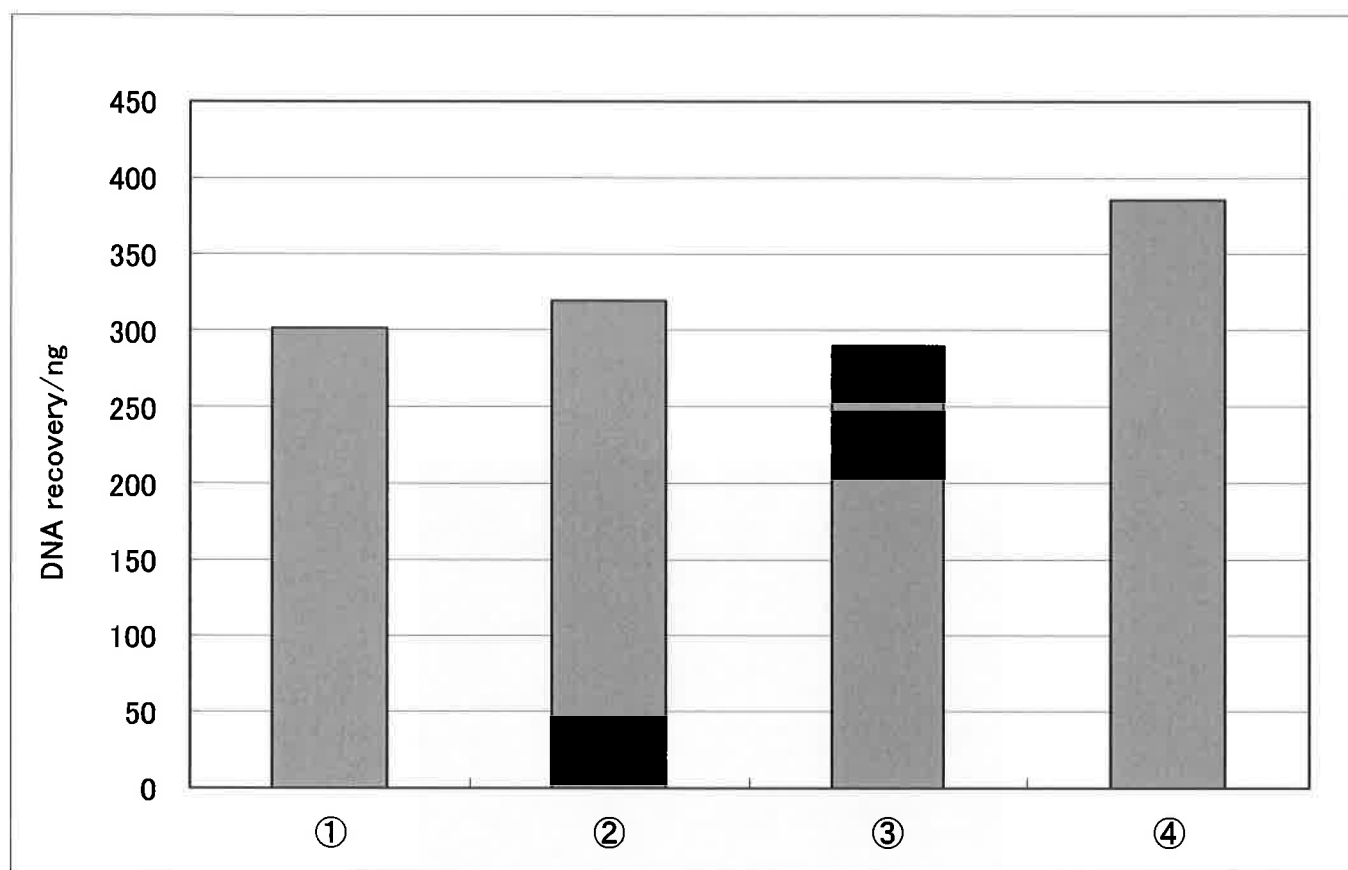


Fig.27

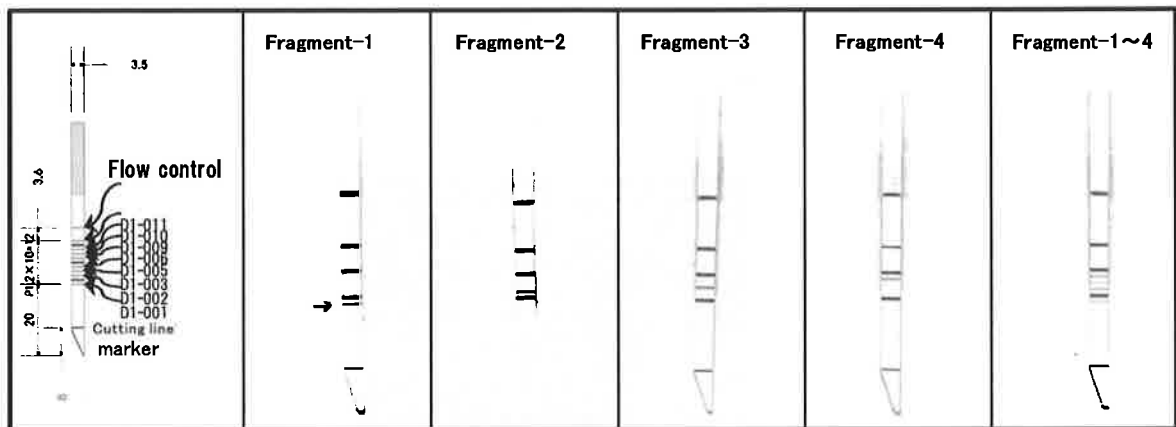


Fig.28



Fig.29

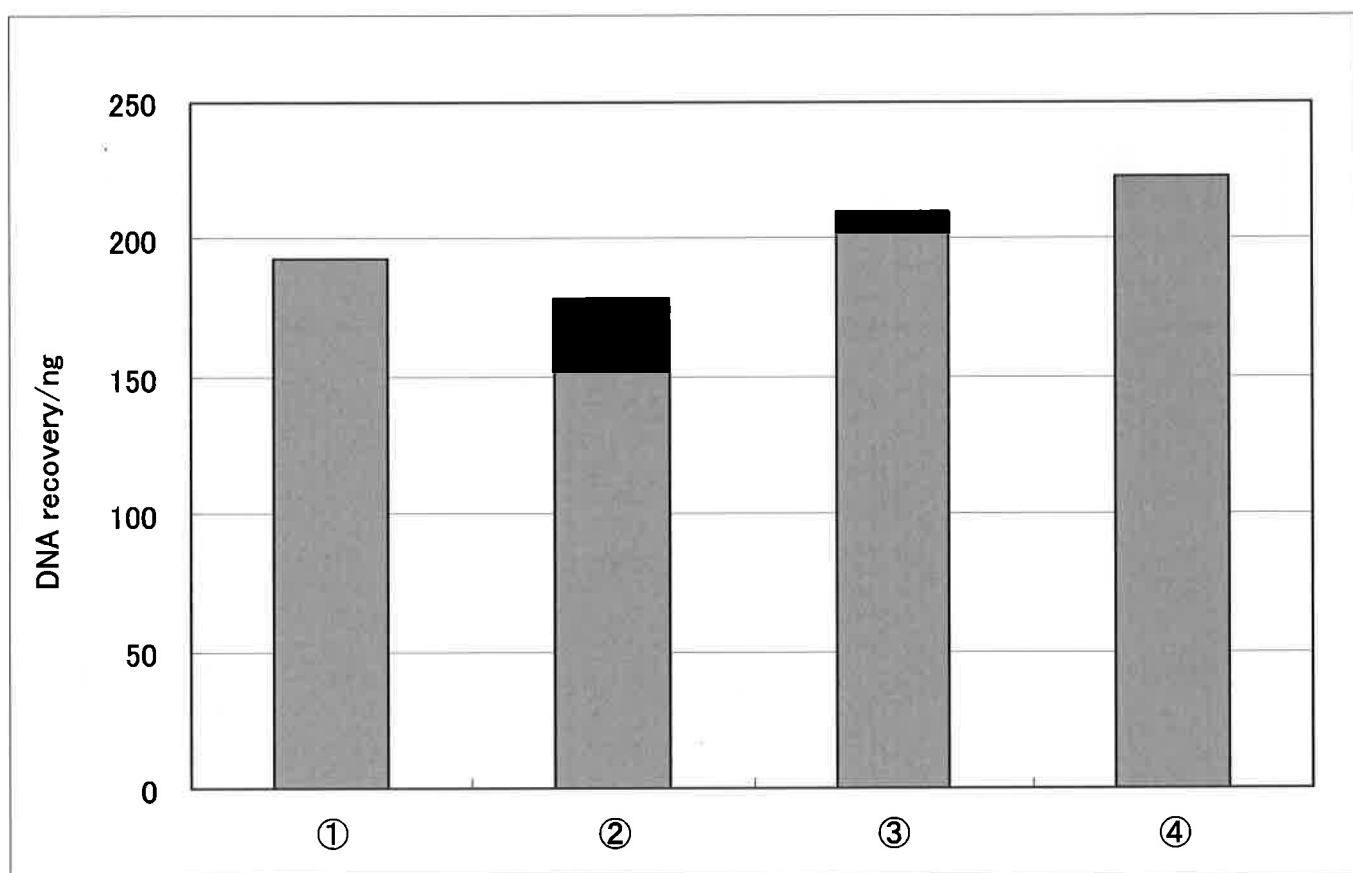


Fig.30

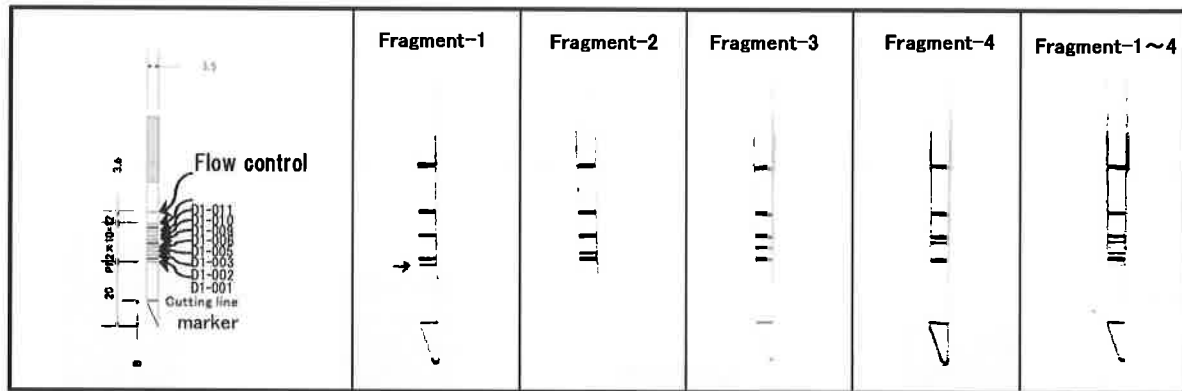


Fig.31