

Fig. 1

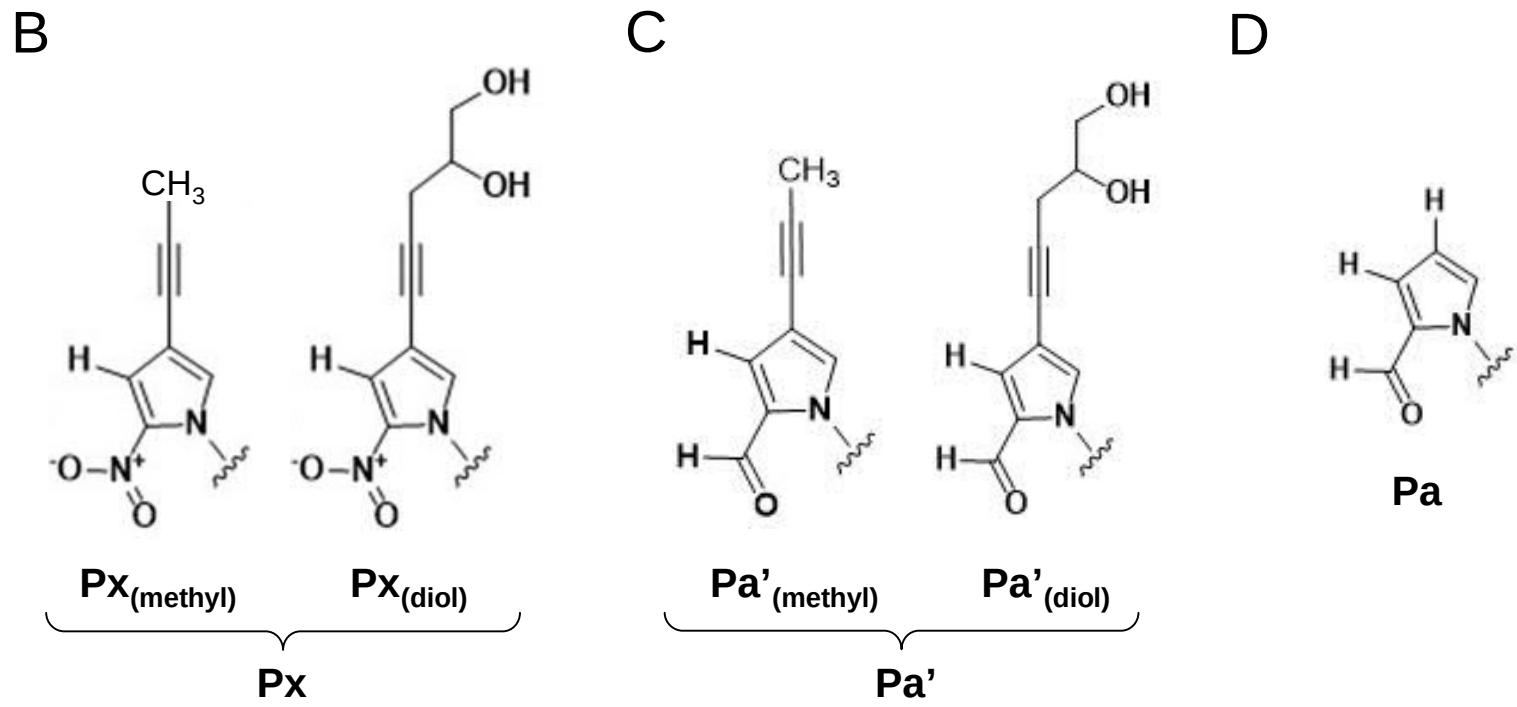
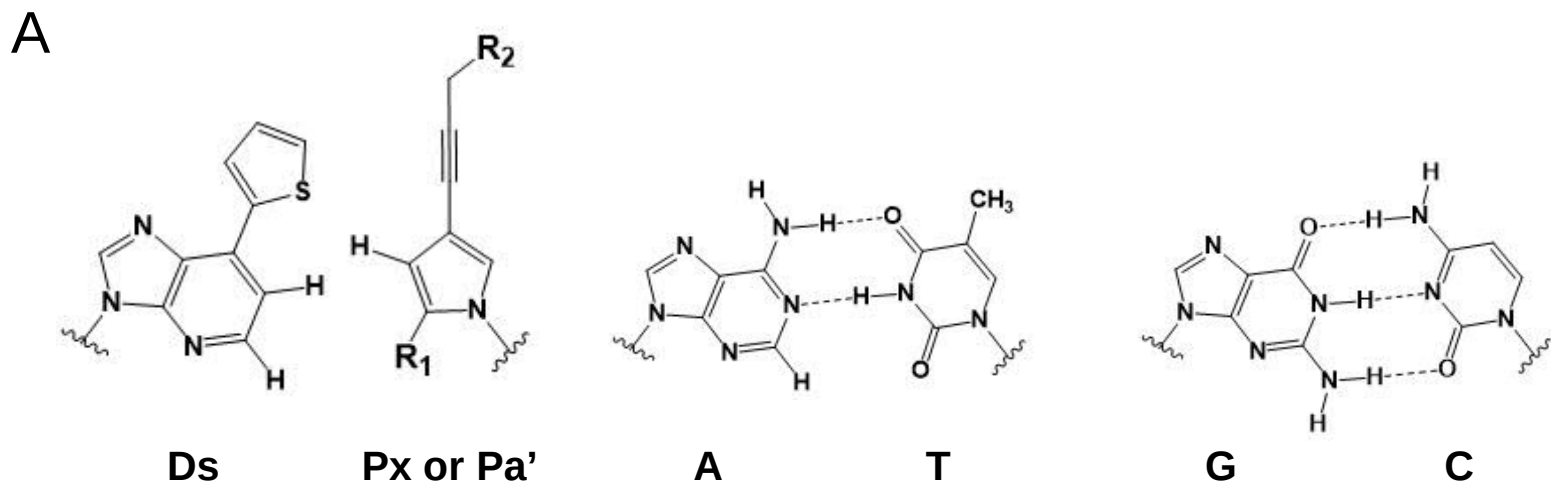


Fig. 2

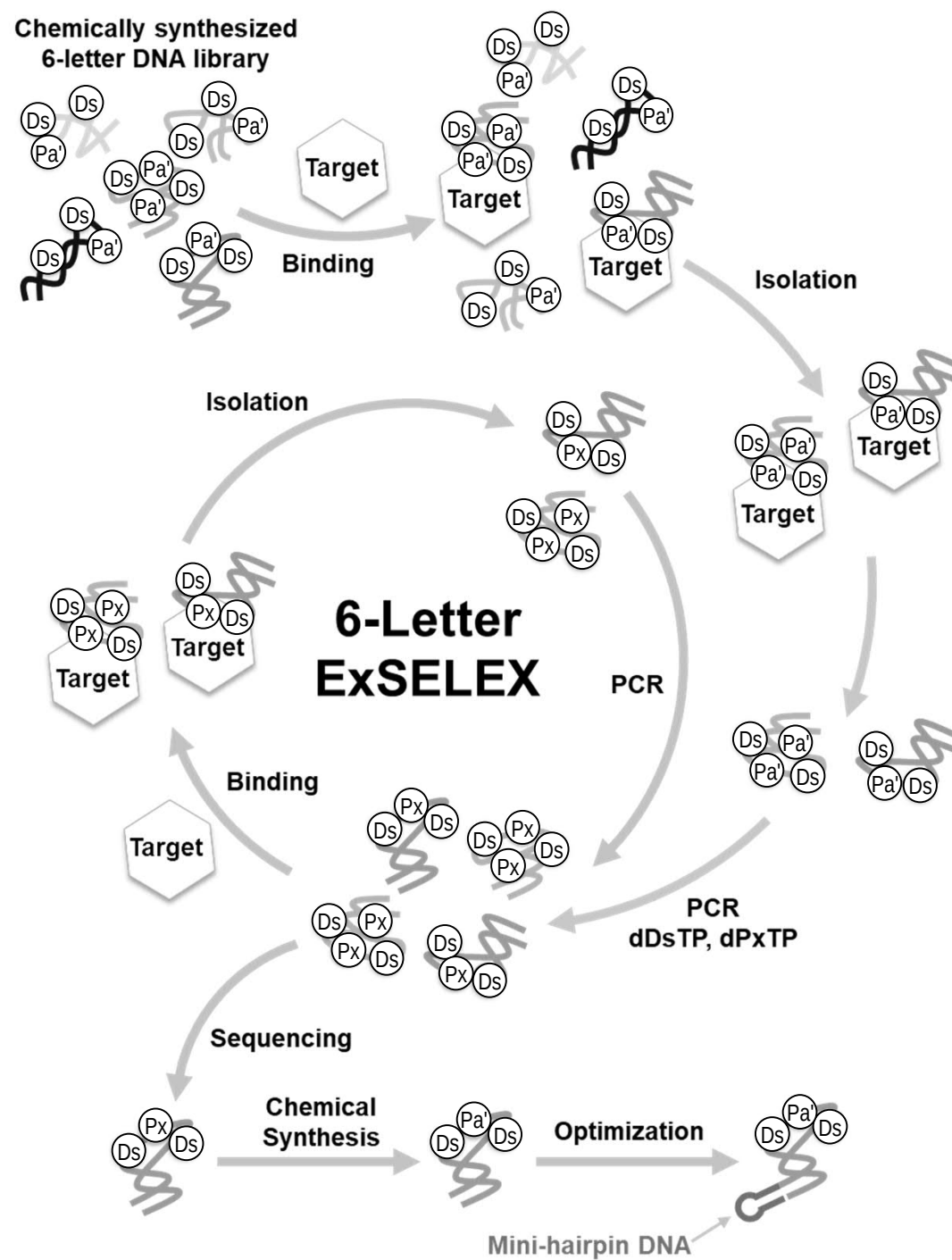


Fig. 3

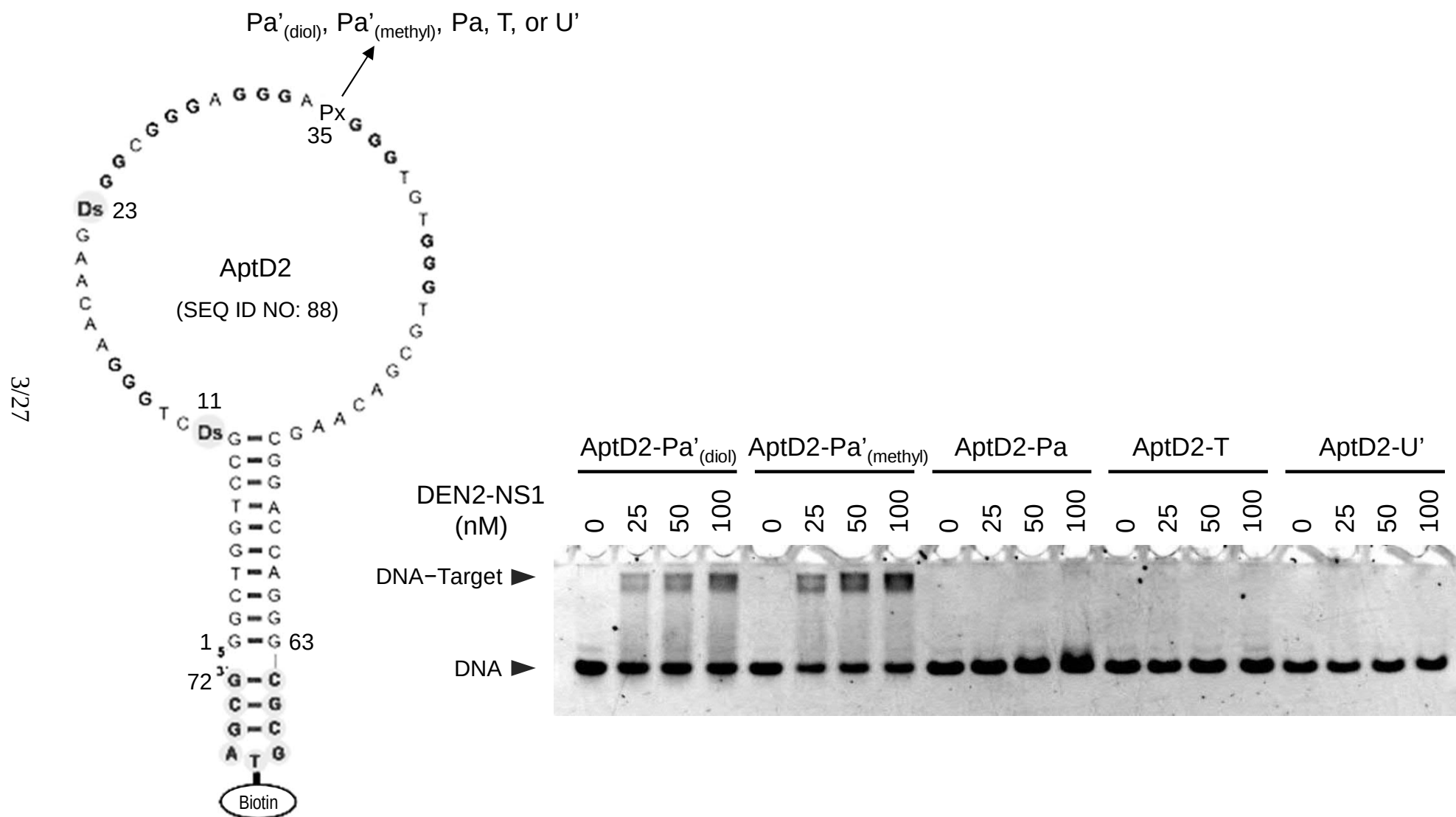
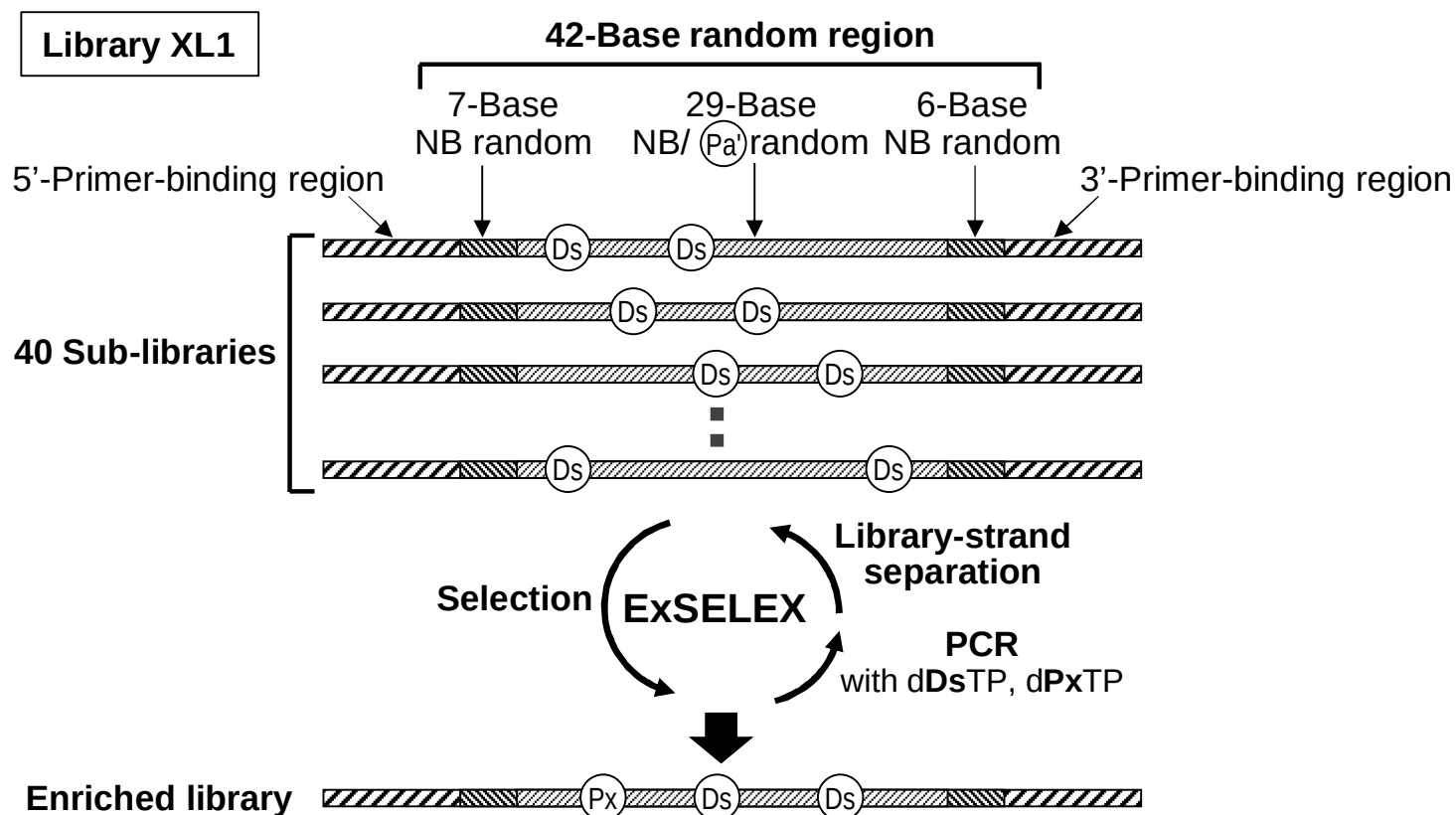


Fig. 4

A



B

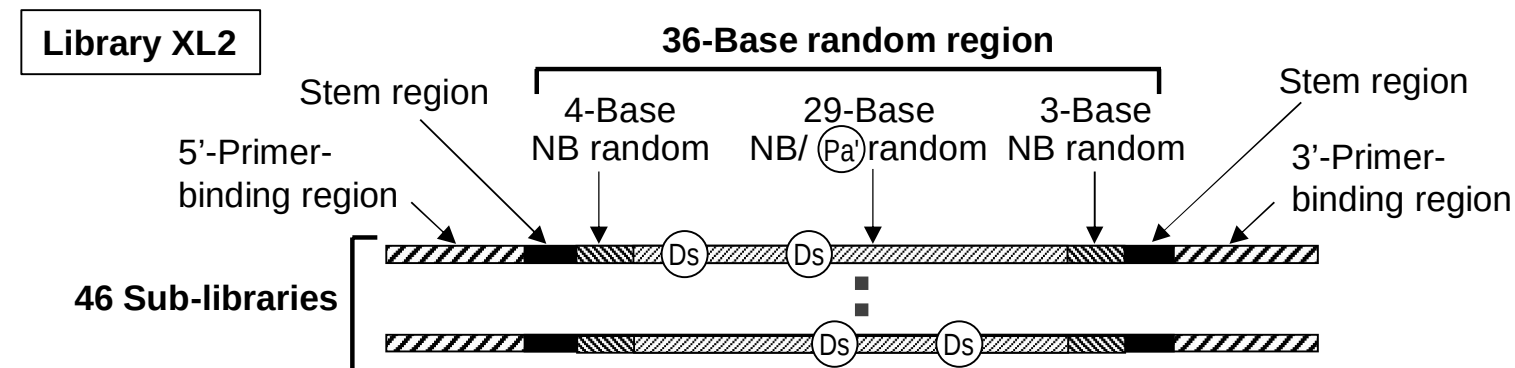


Fig. 5

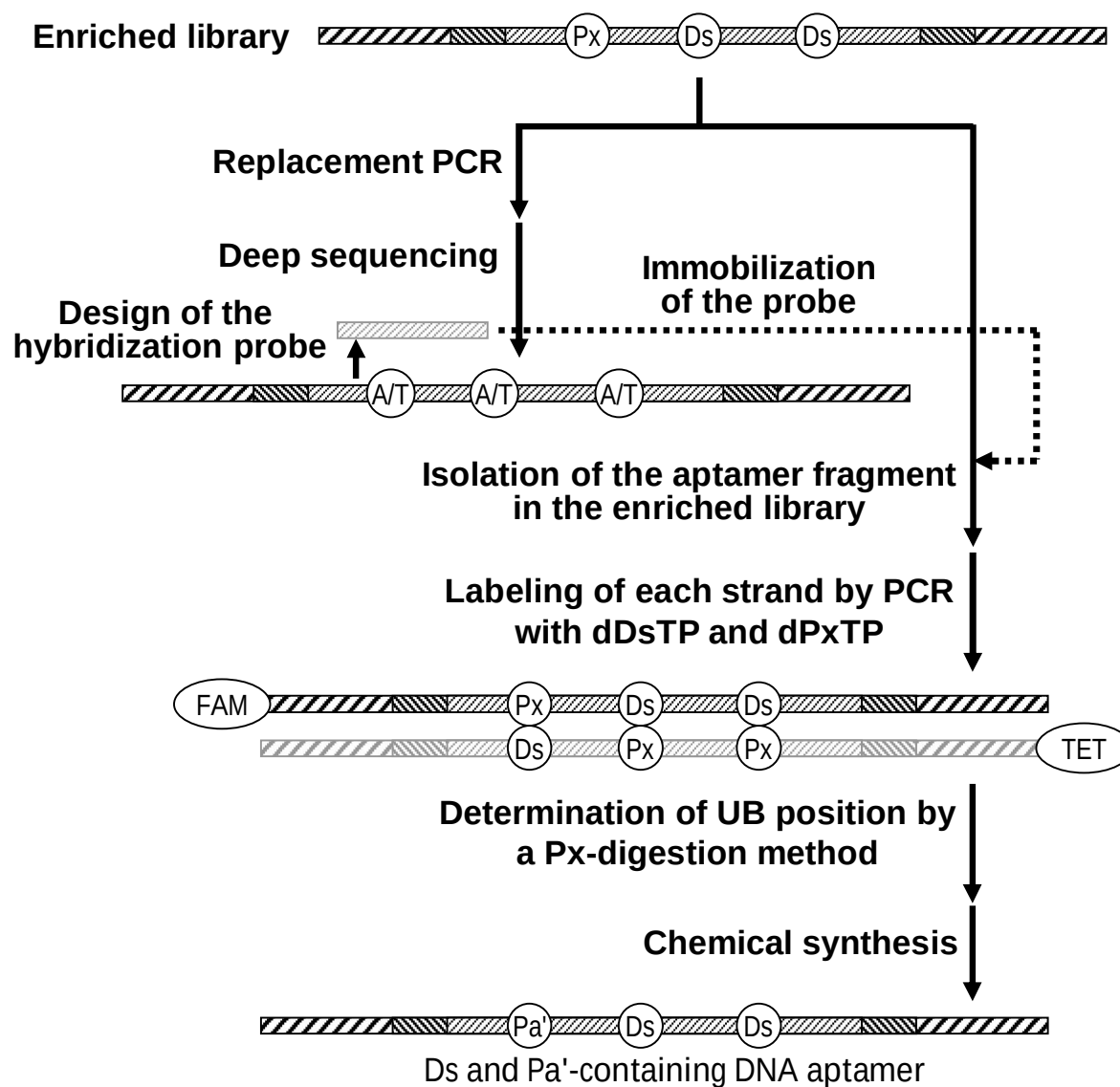
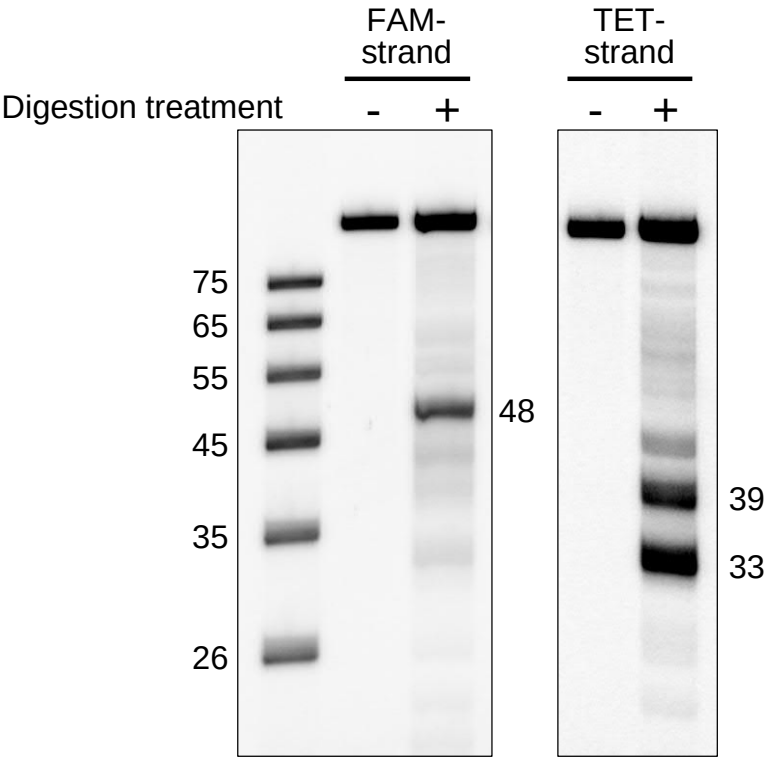


Fig. 6

A

Family	Sub-library	Population (%) (7R/8R)	Sequence	SEQ ID NO:
			P, D, N: Possible Px, Ds, Px/Ds positions, respectively	
1	#04	21/46	CTGCTCCGCAGTCTGTGGTGGGAC P GGGCT D ATGTADGGGATCTGACAAGCGGAGTAG	89
2	#31	25/20	TGATTAGCTGAGACCTGATGCTGTG N CTGGGTGGGG D CCTTAGCGTTTGG D CATCGGCTGAAGG	90
3	#08	11/14	AGACCTGATGCTGGGGCG N GGGGTGGG A PTGTGTGGGC D CGGGGG D CCTGATAAGACAAGCGGA	91
4	#19	30/12	ATGCTAGATACGCAGC P TTAGTCAADGGAATTGCG D GTATAAGGGTT	92

B



C

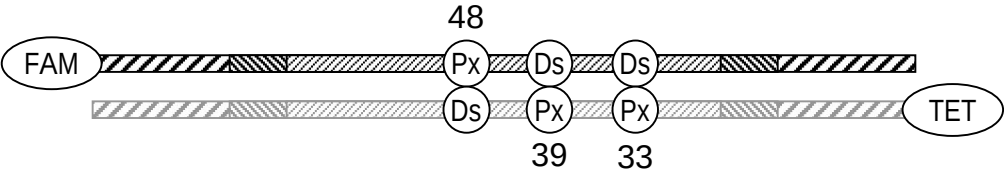


Fig. 7

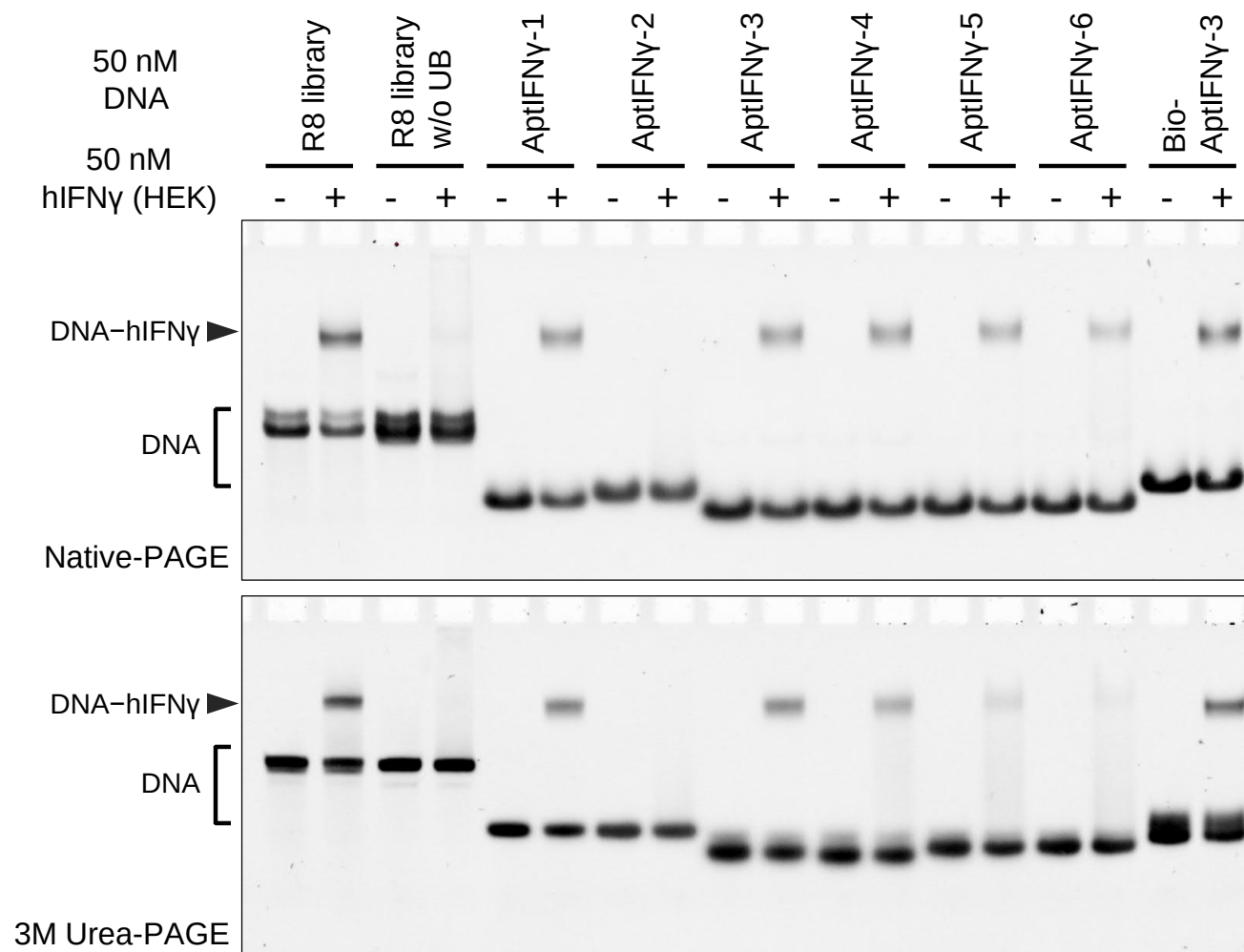
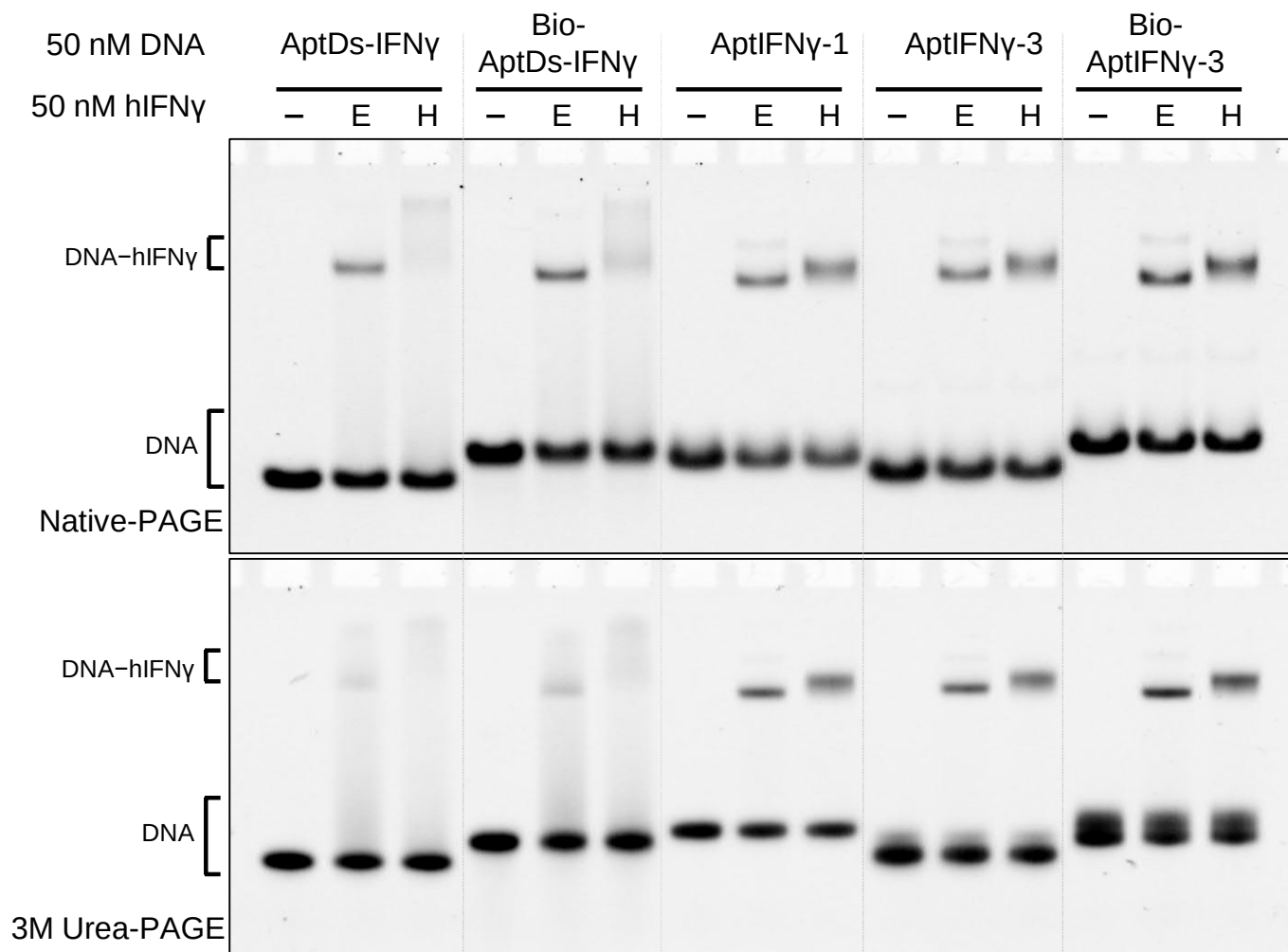


Fig. 8



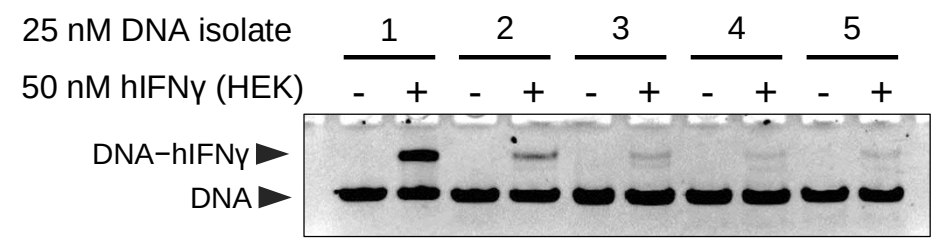
E: recombinant non-glycosylated hIFN γ , expressed in *E. coli*
H: recombinant glycosylated hIFN γ , expressed in HEK293 cells

Fig. 9

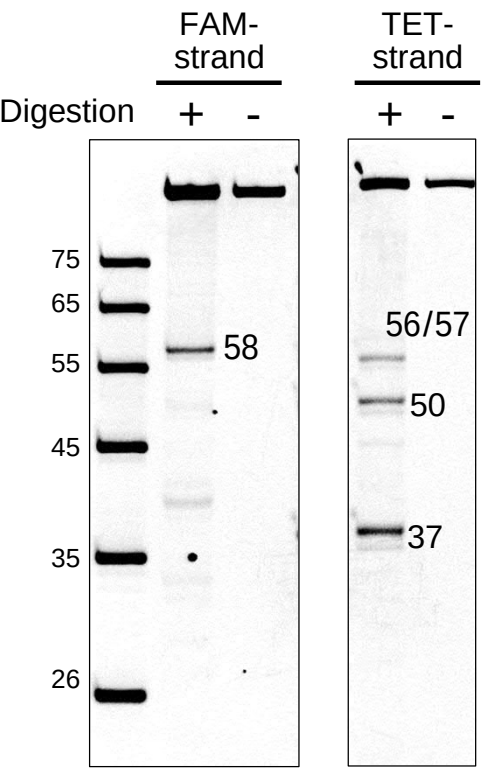
A

Family	Sub-library	Population (%)	Sequence	SEQ ID NO:
			P, D, N: Possible Px, Ds, Px/Ds positions, respectively	
1	#36	27.28	ATTCTCACGCCGTCATAATTGTT DD TTTGGATCCTTG D AGTGGGGACGTGACAAGC	93
2	#22/#33	22.19	ATTCTCACGTAANGGTAT NG GATTTGCG D GGGGNAGGGTT N CCAACGTGACAAGC	94
3	#37	11.72	ATTCTCACGCAAGACCTCTCGGGAGAGT D TACGAAGTTGTADTTGCGTGACAAGC	95
4	#02/#31	9.42	ATTCTCACGTCGCGGAA AD GGTAT NG TAC NC GTTGGTTTCCCGGCGTGACAAGC	96
5	#42	7.20	ATTCTCACGAGAT D GCTAACGACGGGGCTTTAGGC DA ATTTACCTCGTGACAAGC	97

B



C



D

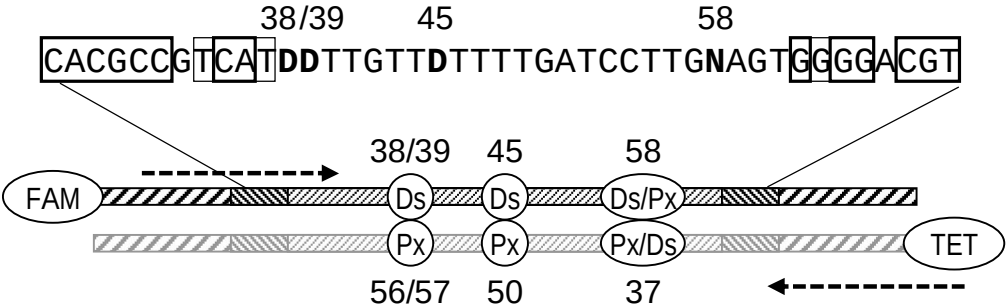
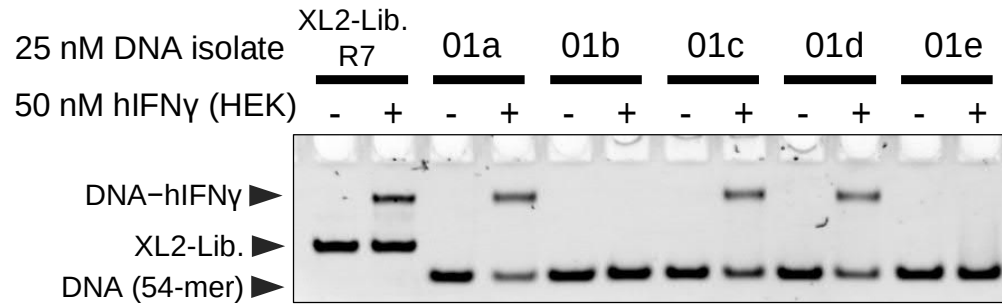


Fig. 10

A



E: recombinant non-glycosylated hIFN γ , expressed in *E. coli*
H: recombinant glycosylated hIFN γ , expressed in HEK293 cells

B

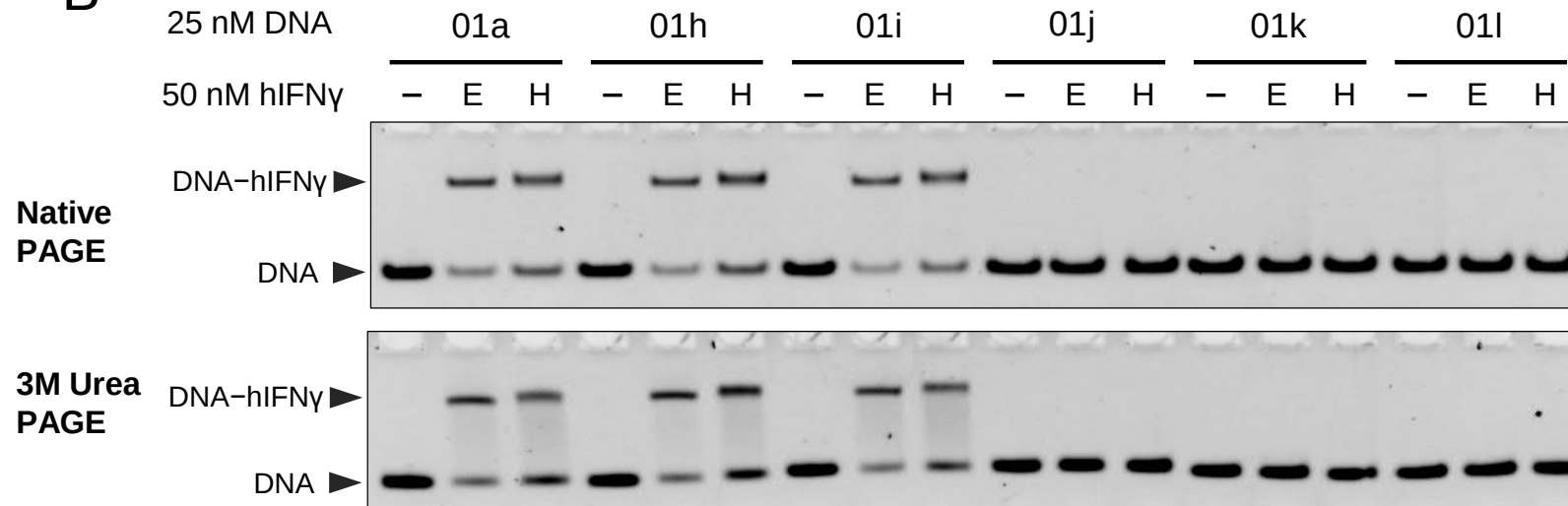


Fig. 11

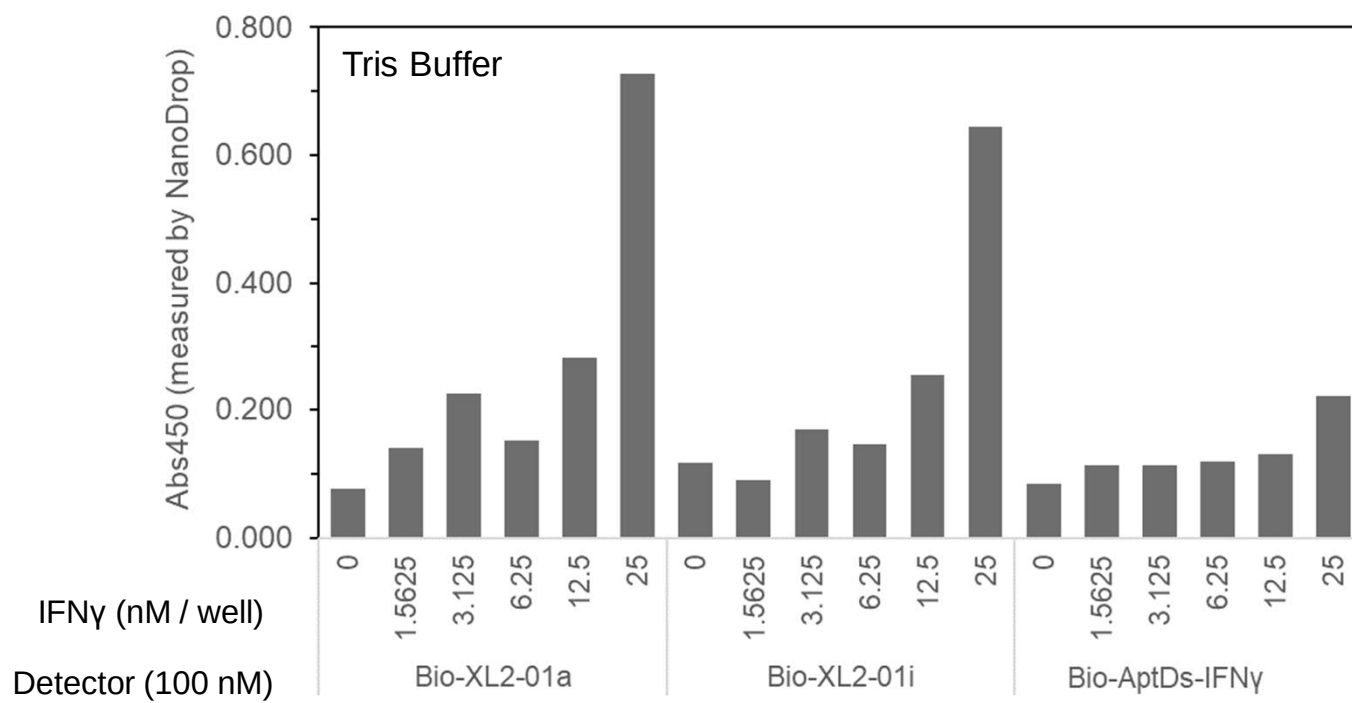


Fig. 12

A

Family	Sub-library	Population (%) (5R)	Sequence P, D: Possible Px, Ds positions, respectively	SEQ ID NO:
1	#21	51.3	<u>TGCT</u> TGCGGCTT C DGCCATGACCC D TTTCAGCCGGC P TGGTCATGT <u>GACAAGCGGAGTAG</u>	98
2	#24	12.0	<u>AGCTGAGACCTGATGCTGCGAACC</u> D TTTCAGCCGGC D TGTT C GAGCAGC P CTTCCAAGGG	99
3	#02	9.7	<u>TGCT</u> ACTCCATAGATAAC D CTACC D TTTCAGCCGGC P TGTATGTTAGACAAGCGGAGTAG	100
4	#02	6.5	<u>TGCT</u> TACGGACCAATTGG D TGGCC D TT CAGCCGGC P TGCCACCAAC <u>GACAAGCGGAGTA</u>	101
5	#24	3.6	<u>ATGCT</u> TACGTT D GCCACTGGGCC D TTTCAGCCGGC P TGCCCAGGTGGACAAGCGGAGTA	102
6	#22	3.3	<u>CTGATGCT</u> TGGGCAT P GGAGACCC D TT CAGCCGGC D TGTGC P GCCGCCGT <u>GACAAGCGG</u>	103

B

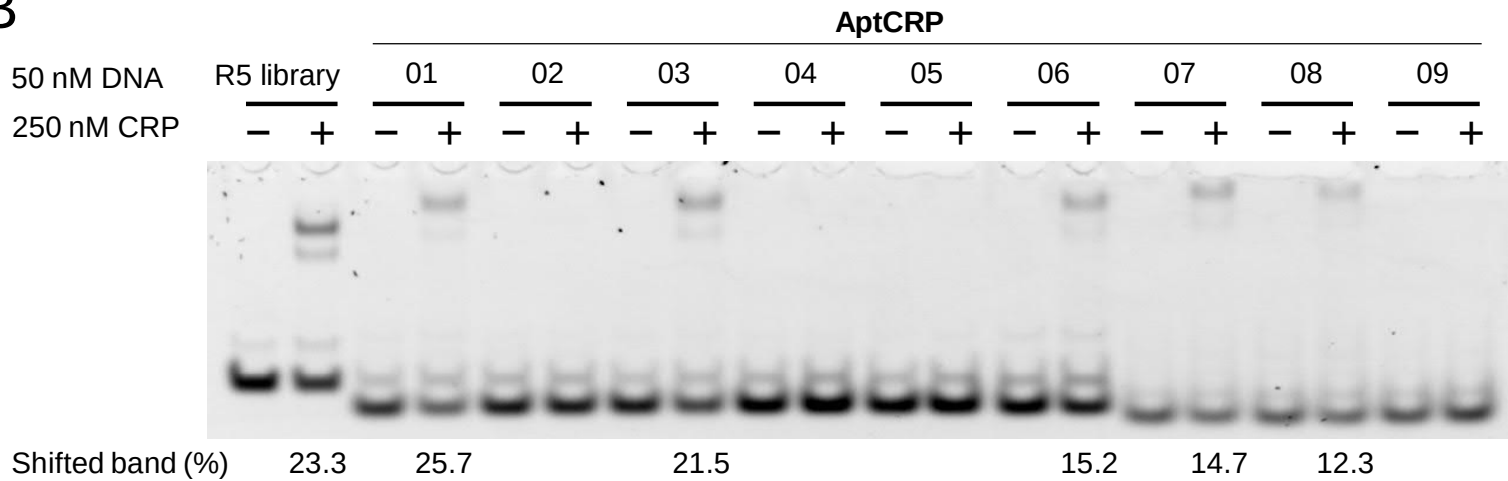


Fig. 13

Family	Sub-library	Population (%) (5R)	Sequence P, D: Possible Px, Ds positions, respectively	SEQ ID NO:
XL1-01	#35	4.15	<u>CCTGATGCTCACGCAGCAT</u> GGAACCTTTADTGGCTAGGGGTGGGDGGAGGT GACAAGCGG	104
XL1-02	#15	3.13	<u>TGCTGATCCCGCCGCGCAGATTADTGGTTTGADATAGGGTGGTTA</u> GGACAAGCG	105
XL1-03	#04/#15	2.98	<u>TGCTTTCGGCCTATGPAGCGCGCNAGGGTGGGD</u> TCTTGNT GGTTGGGACAAGCGT	106
XL1-04	#10	2.45	<u>CT</u> GGTTGCGTGAAGTTDGGGTGGGD ATGTGAT GGGPGGT AGATAGACAAG CGG	107
XL1-05	#39	2.41	<u>TGCTTATCTTACAAGCGCGGATCTTADTGGTTGGGGTGGD</u> TTT GGGGACAAGCG	108
XL1-06	#05	1.71	<u>GCTGAGACCTGATGCTC</u> GGAAGGADGGTGGGD TCT GGGTTGGGPGGP GCCTAGATC AGGACAAGC	109
XL2-01	#20	17.97	<u>CTCCTATTCTCACGAGGCAGGGTTGGGAGGGTAAGGADGGTGGGT</u> GDCCTCGTGACAAGC GGAG	110
XL2-02	#03	14.00	<u>CTCCTATTCTCACGGCAAACGCAC</u> TTTADT GGTG DGGGTGGGCT PGTCTTCGTGACAAGC GGAG	111
XL2-03	#03	5.01	<u>CTCCTATTCTCACGTAGCDGGTCCGGGTTADTGGGPGGGTGGCTTGGGGCCGT</u> GACAAGC GGAG	112
XL2-04	#02	4.90	<u>CTCCTATTCTCACGCGCTGTGGTDGTTTTDTTGGGGGGGTGGTTAA</u> GGCGCGTGACAAGCGGAG	113
XL2-05	#01	4.22	<u>CTCCTATTCTCACGCTTTDACTTADTGGCTGGGTGGPCTGGGTAAAGACGCGT</u> GACAAGC GGAA	114

Fig. 14

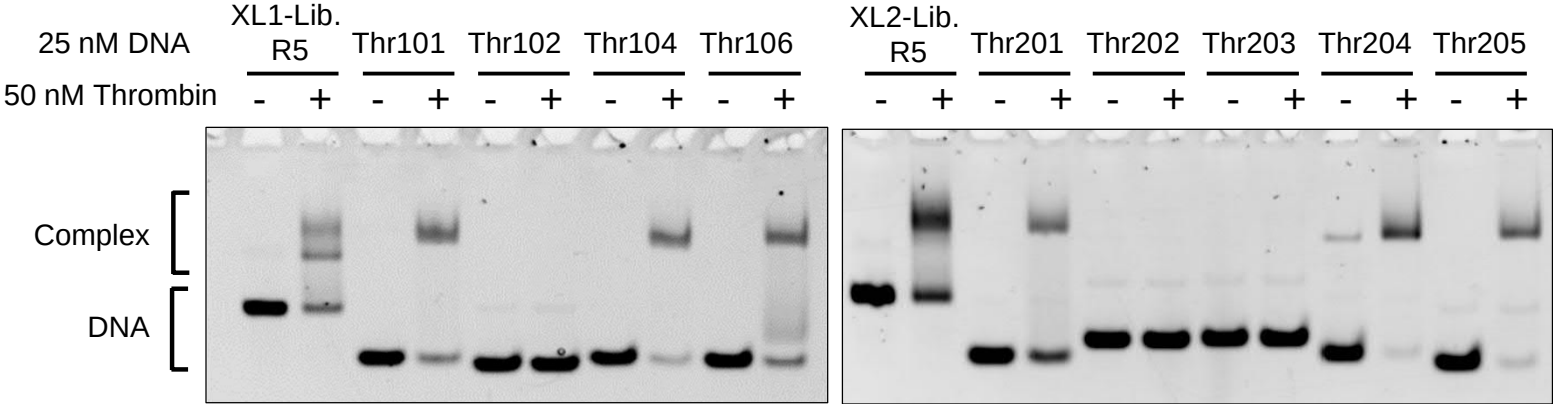


Fig. 15

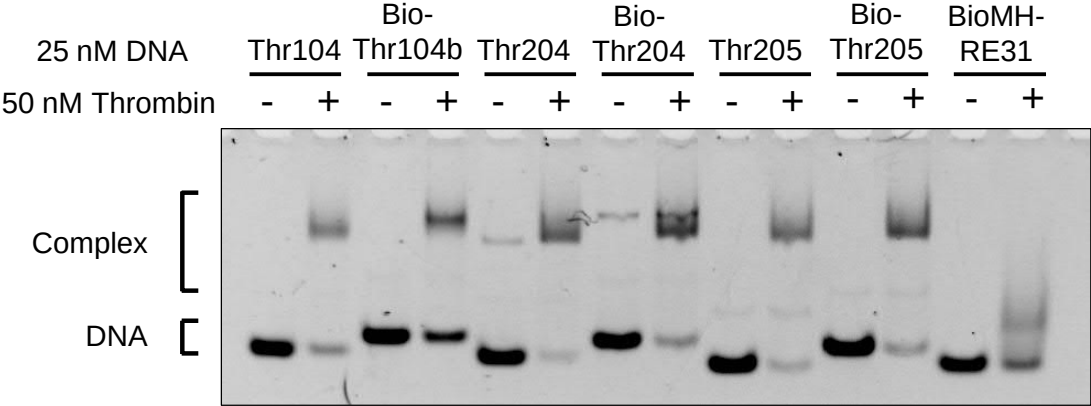


Fig. 16

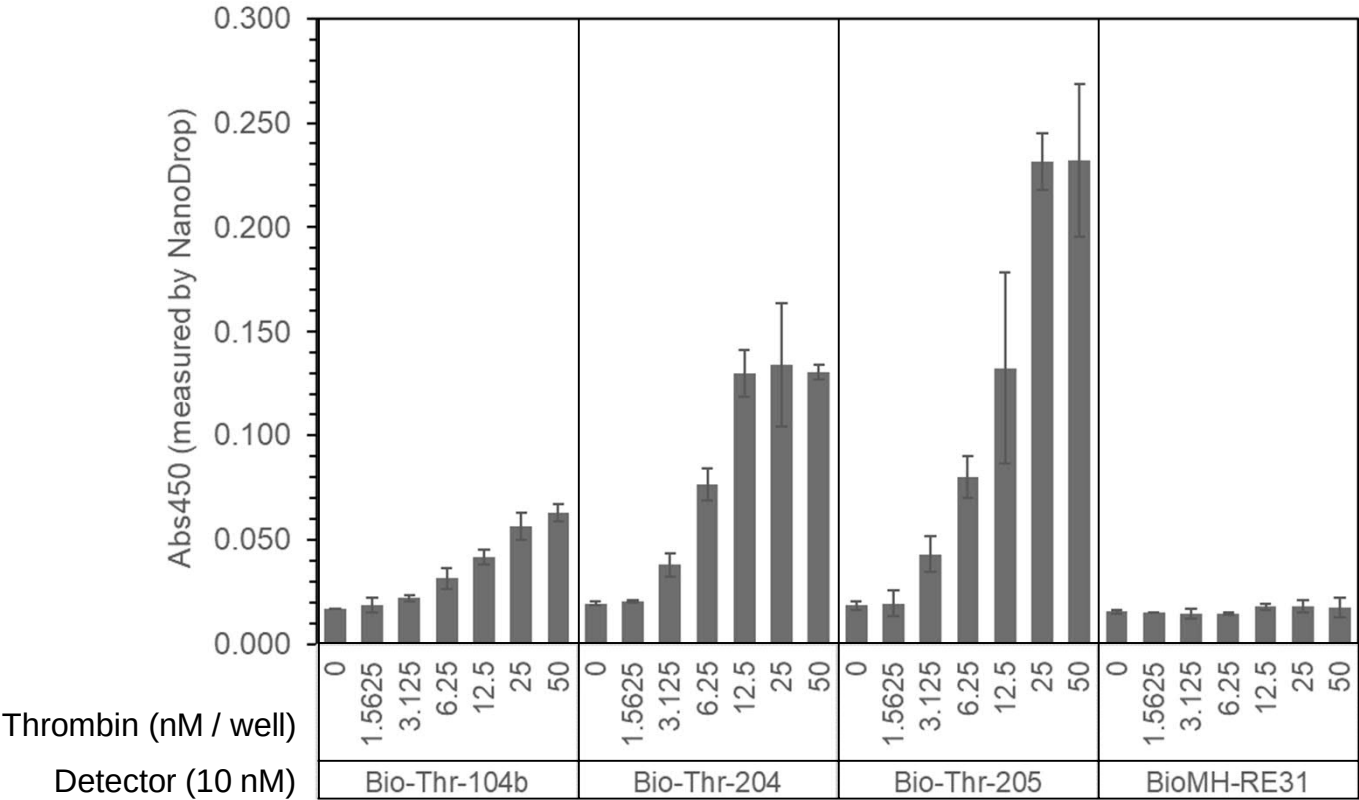


Fig. 17

A

Family	Sub-lib.	Population (%) (5R)	Sequence P, D, N: Possible Px, Ds, Px/Ds positions, respectively	SEQ ID NO:
XL1-01	#37	57.50	<u>ATGCTCCGCGCCGTACAC</u> D AGTCCGCTAGACAT GDC AGT P ACGAGTGGACAAGC GG AGTAG	115
XL1-02	#13	22.57	ATGCTT GG CTG A DC T GACAA AD C AGGGG PCCCGTAAACTGTGTCACGACAAGC GG AGTAG	116
XL1-03	#24	5.98	<u>ATGCTT</u> GG T AGGD TA CT ACTCTAG DGG AGAT PTGGGCCGGG TTTGT C GACAAGC GG AGTAG	117
XL2-01	#19/#40	78.95	<u>TCTCCTATTCTCACGT</u> GGGG TCNCCGATGNCCAT N ACCAC AGGD ACCACATCGTGACAAGC GG AGT	118
XL2-02	#46	12.34	<u>TCTCCTATTCTCAC</u> GGGC GAT DC AN CAGG TGNCCACAATT NCCGGD ATTTCCGTGACAAGC GG AGT	119
XL2-03	#04/#22	2.84	<u>TCTCCTATTCTCAC</u> GGCC GCACCCNGCTCCTTC GD CAAT CN CGGCCT C GGCC GTGACAAGC GG AGT	120
XL2-04	#25	2.34	<u>TCTCCTATTCTCAC</u> GAAATTA AN CTCAGCTAGAATT GD CCCC DC AG NA ATCGTGACAAGC GG AGT	121
XL2-05	#37	1.06	<u>TCTCCTATTCTCAC</u> GCTCAAATGTTTC PCCGGGGD ACCATCTAC AGD TAACGTGACAAGC GG AGT	122

B

Ligand (immobilized Aptamer)	Fitting RUmax	k_{on} (1/Ms)	k_{off} (1/s)	K_D (M)
Bio-IL6-101	Grobal	2.30E+04	3.46E-04	1.51E-08
	Local	7.94E+06	6.95E-03	8.75E-10
Bio-IL6-201b	Grobal	4.01E+05	2.93E-04	7.31E-10
	Local	6.61E+04	1.13E-04	1.71E-09

Fig. 18

18/27

Family	Sub-library	Population (%) (5R)	Sequence P, D, N: Possible Px, Ds, Px/Ds positions, respectively	SEQ ID NO:
XL1-01	#35	9.63	<u>TGATGCTTGATTGCCCAAPCCGTTGGC</u> D AGGCGGGCAATAC C DGAATAAGACAA	123
XL1-02	#13/#22	9.35	<u>GACCTGATGCTAACTCAANCCGGTGGC</u> D AGGCGAGTT G NACATCTTCTATCAG G	124
XL1-03	#13	6.82	<u>GACCTGATGCTCGACTAADCCGGTGGG</u> D AGGCACGGAGAAGCATGGGTTTCTAG	125
XL1-04	#25	6.68	<u>TGCTTGTGAAAGTGGGGC</u> D CTCGCCGGAG G DAGTGG P AACGTTAAAGACAAGCG	126
XL1-05	#20	5.99	AAGGCTTAC P GAGCTTAACCCA D CCGGTGGC D AGGCGGGGACAAGCGGAGTAG	127
XL2-01	#2/#35	9.66	<u>CTATTCTCACGAGAGTGTGC</u> D CCATAN C ACGGG N AGGTGACATATATCGTGACAAG	128
XL2-02	#2/#13/#20/#39/#45	6.38	GACTAACANATCGC N GGAGCAANCCGTTGGC N AGGCGTGACAAGCGGAGTAGTTAG	129
XL2-03	#38/#44	4.36	CACGCGC G DTTCATGGTGCCAANCCGGTGGC N AGGCGGCCCGTGACAAGCGGAGTA	130
XL2-04	#2/#5/#31/#46	4.25	CACGGCCTTGTC D CCCGG N GGGGG N AGGGGTTAN G GTTACGTGACAAGCGGAGTA	131
XL2-05	#9	3.83	<u>TCACGCAGACGCC</u> P CCCGGCGGGGG D AGGGG A DT C GCTCGGCGTGACAAGCGGAGT	132

Fig. 20

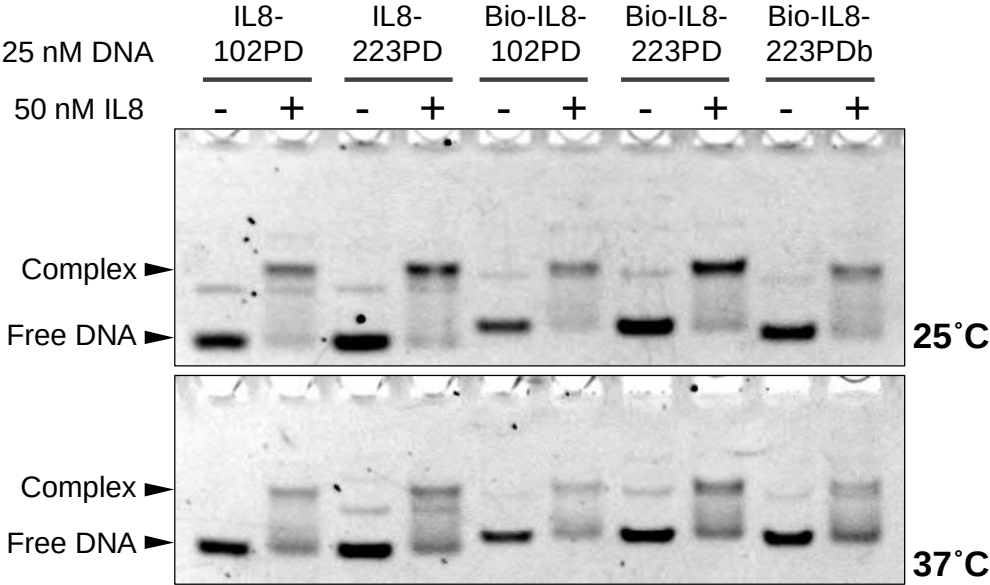


Fig. 21

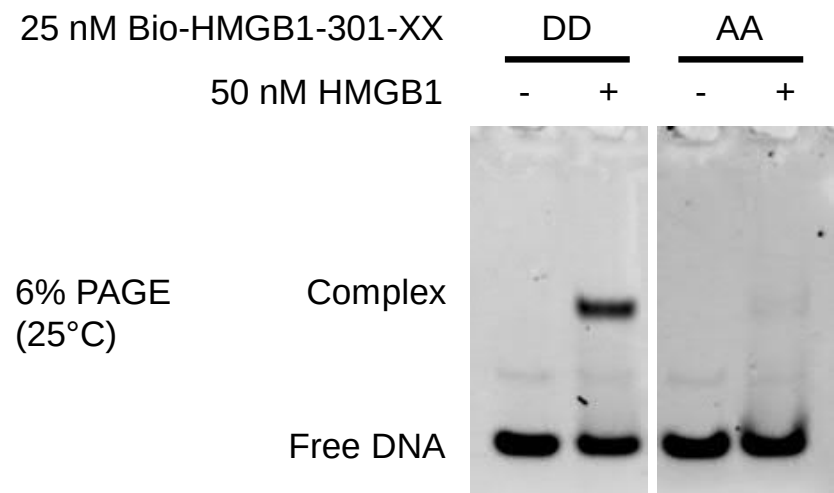


Fig. 22

E: recombinant non-glycosylated hIFN γ , expressed in *E. coli*
H: recombinant glycosylated hIFN γ , expressed in HEK293 cells

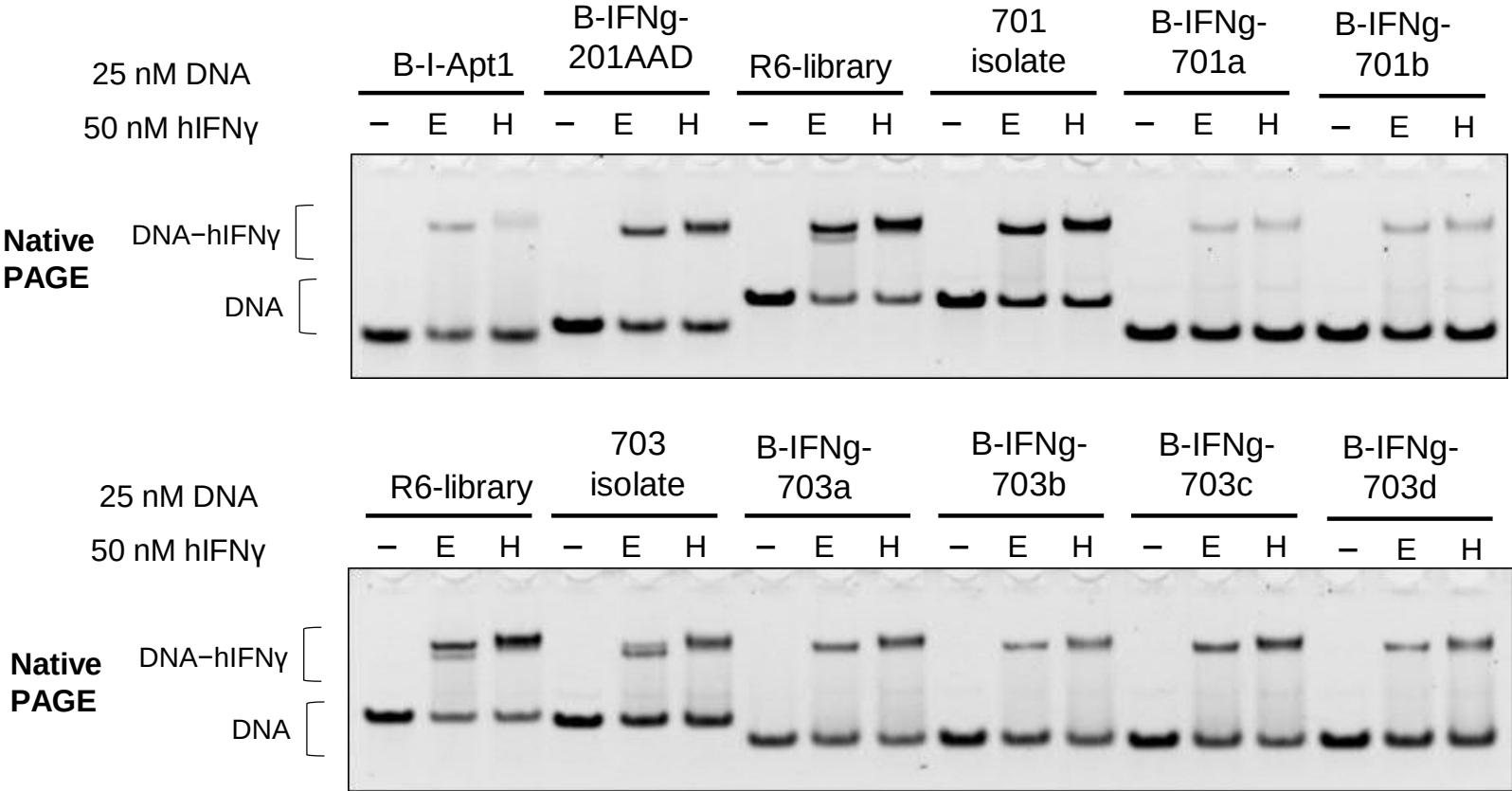


Fig. 23

E: recombinant non-glycosylated hIFN γ , expressed in *E. coli*
H: recombinant glycosylated hIFN γ , expressed in HEK293 cells

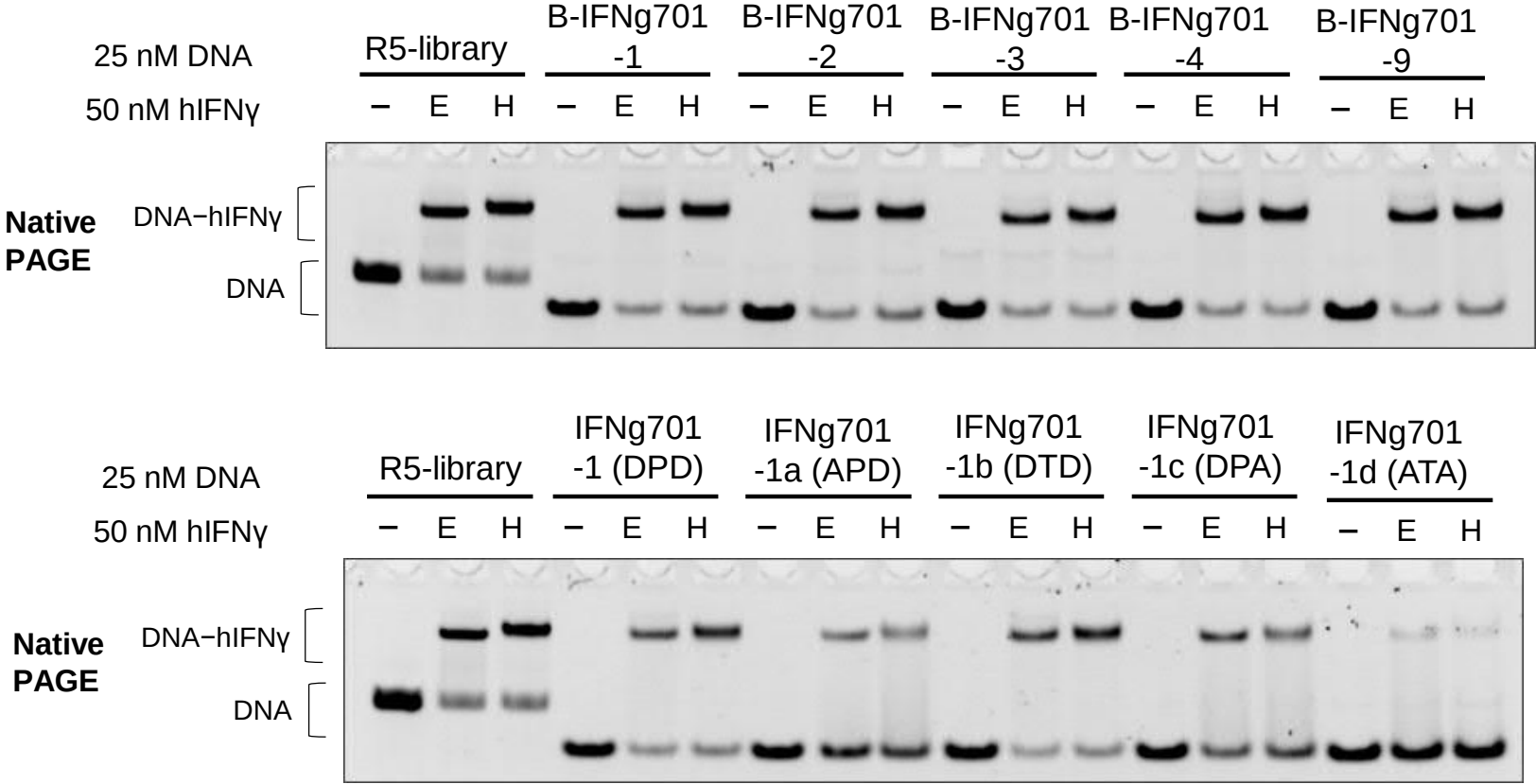


Fig. 24

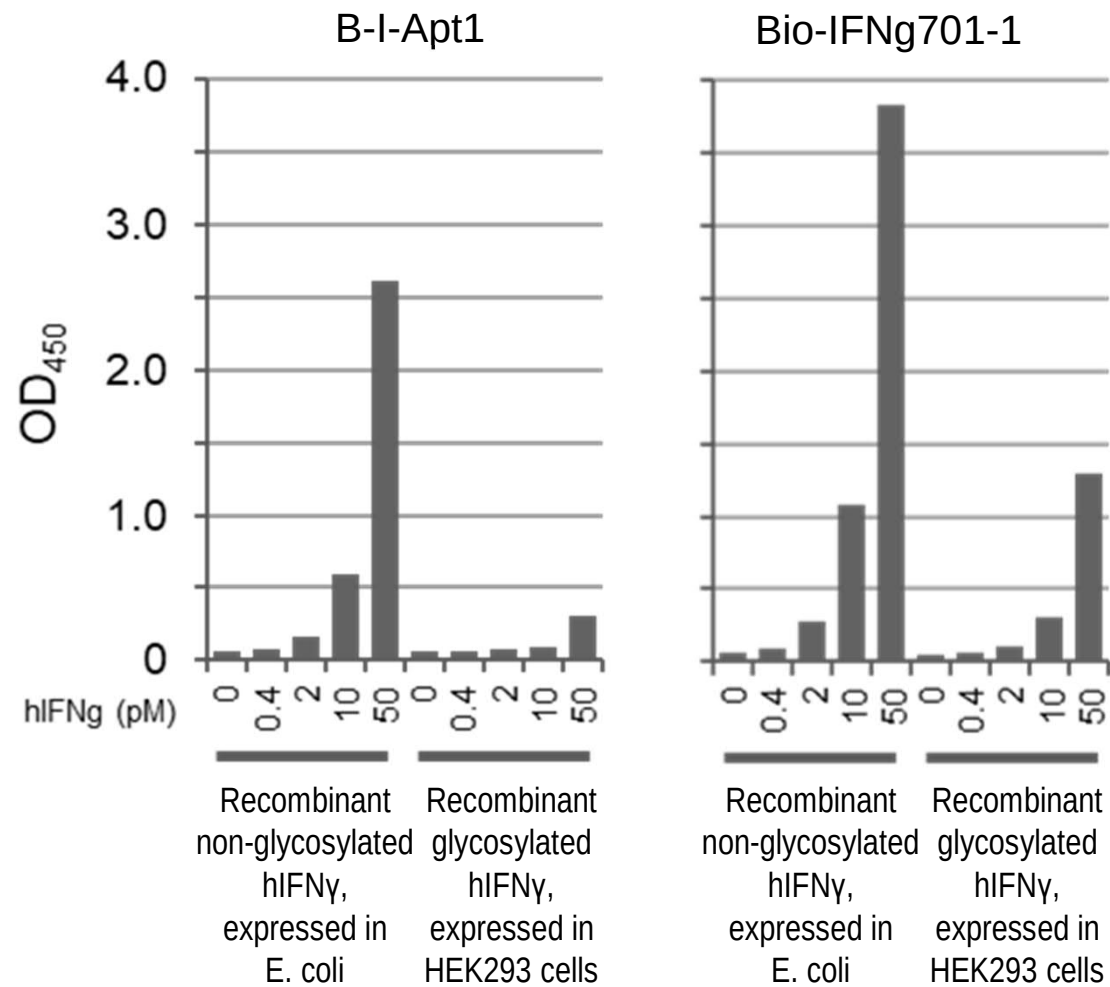
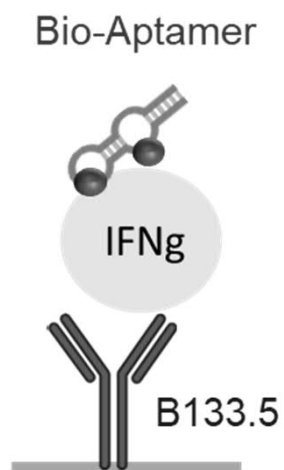


Fig. 25

E: recombinant non-glycosylated hIFN γ , expressed in E. coli
H: recombinant glycosylated hIFN γ , expressed in HEK293 cells

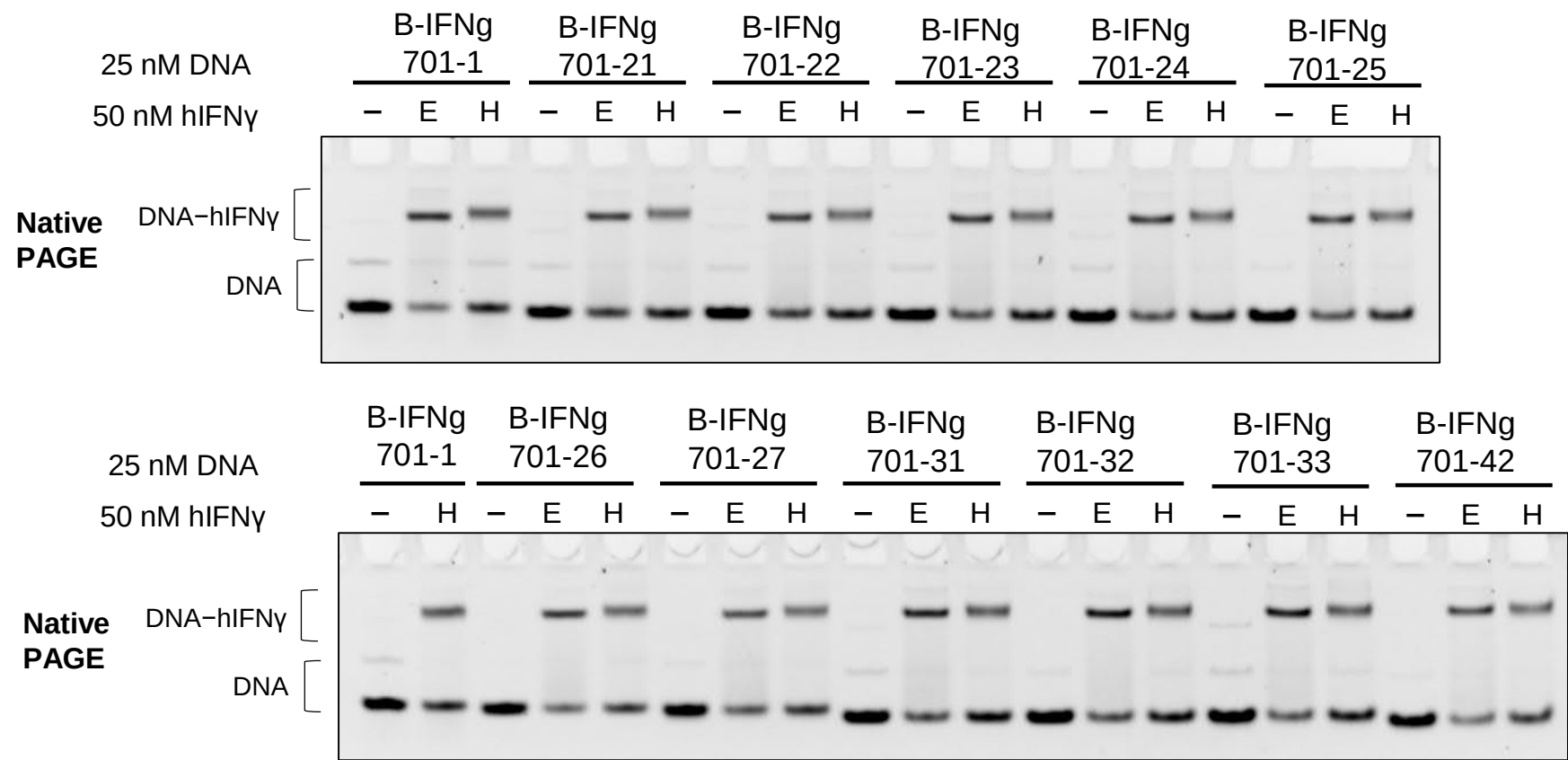


Fig. 26

E: recombinant non-glycosylated hIFN γ , expressed in *E. coli*
H: recombinant glycosylated hIFN γ , expressed in HEK293 cells

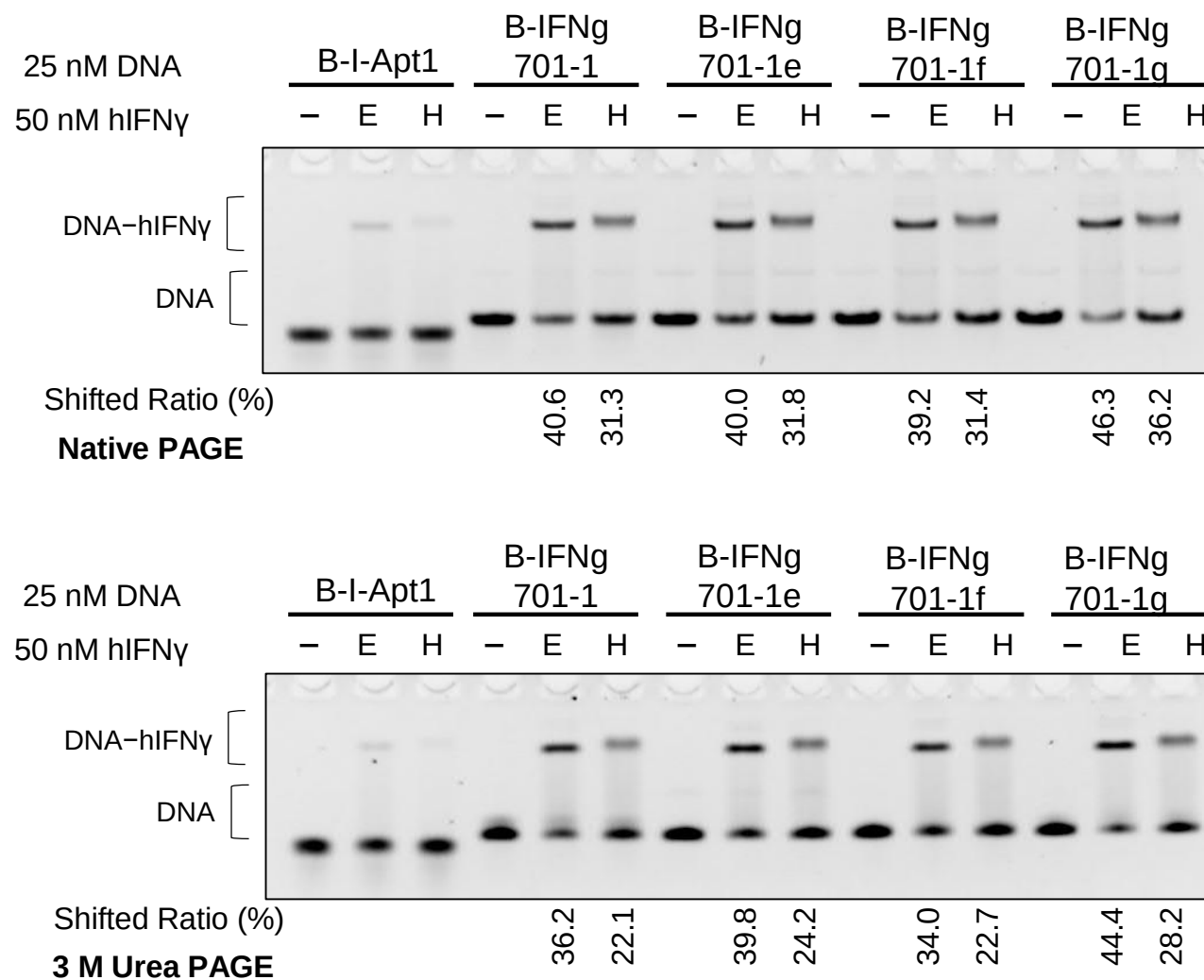
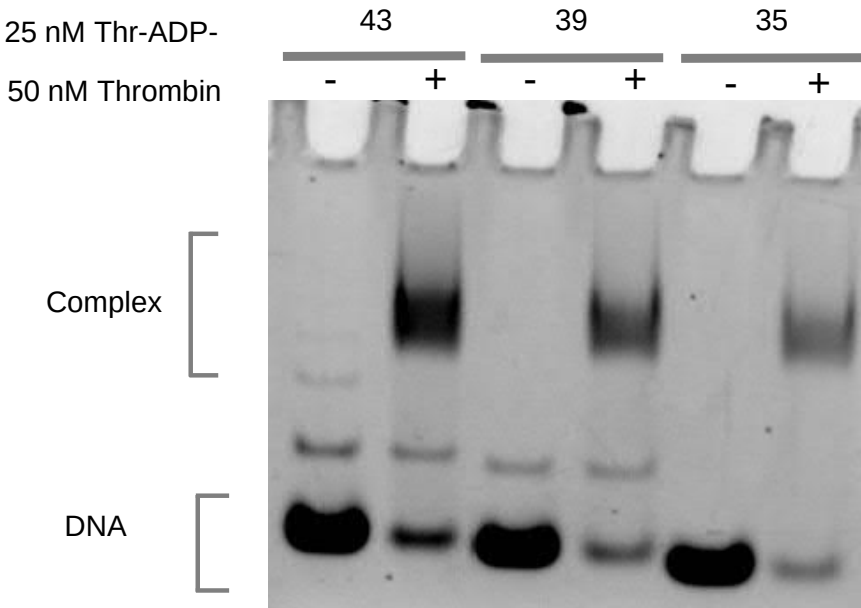
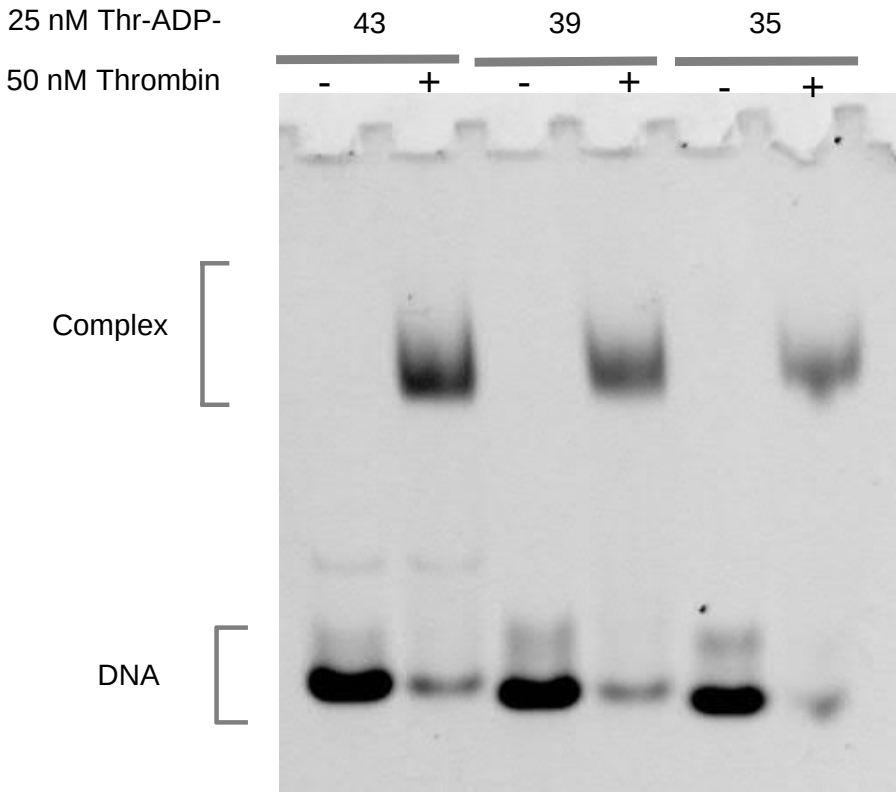


Fig. 27

27/27



Native PAGE



3 M Urea PAGE