

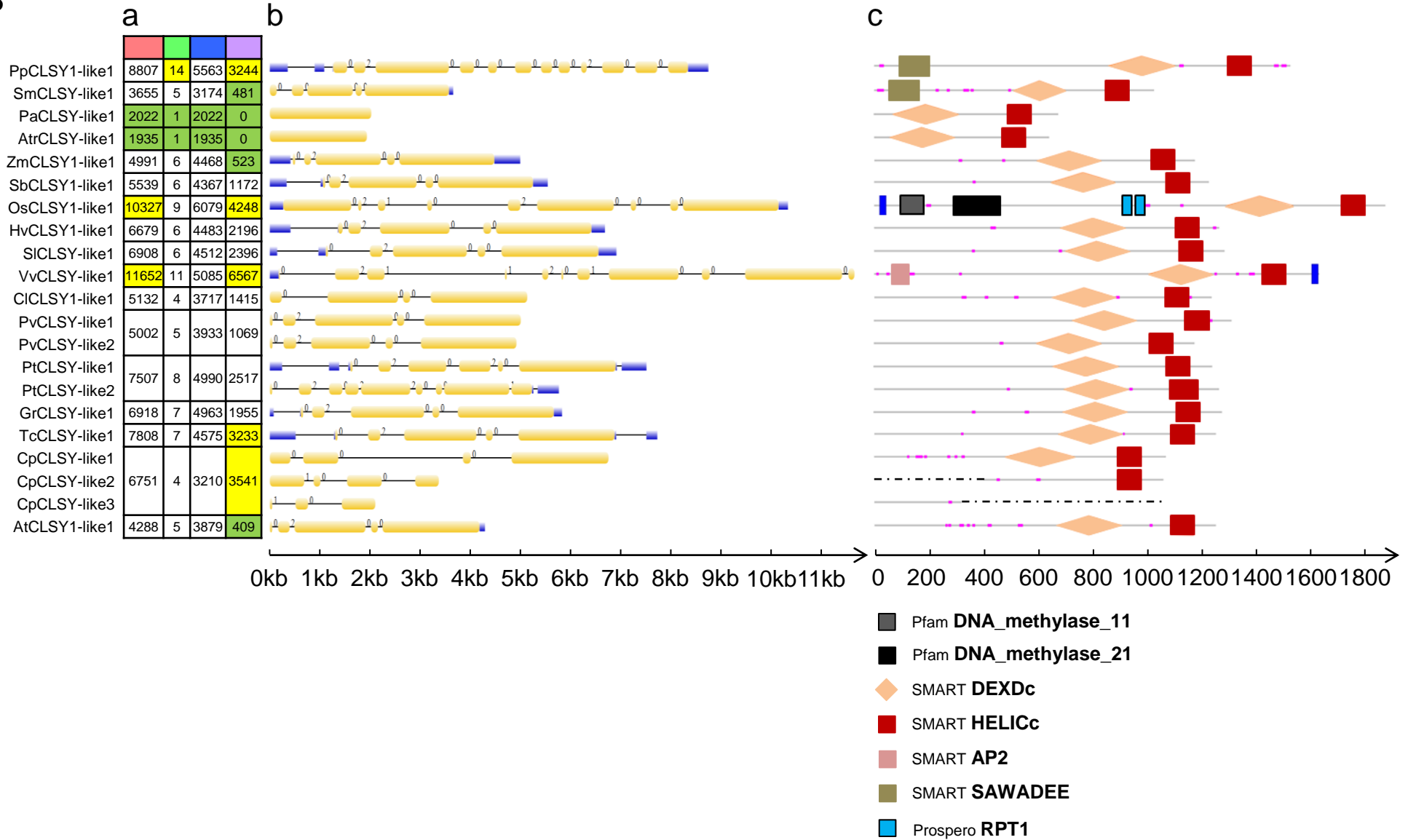
Legend:

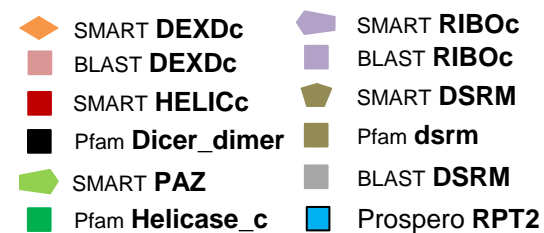
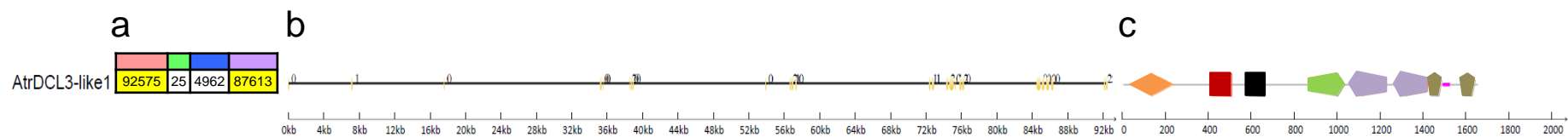
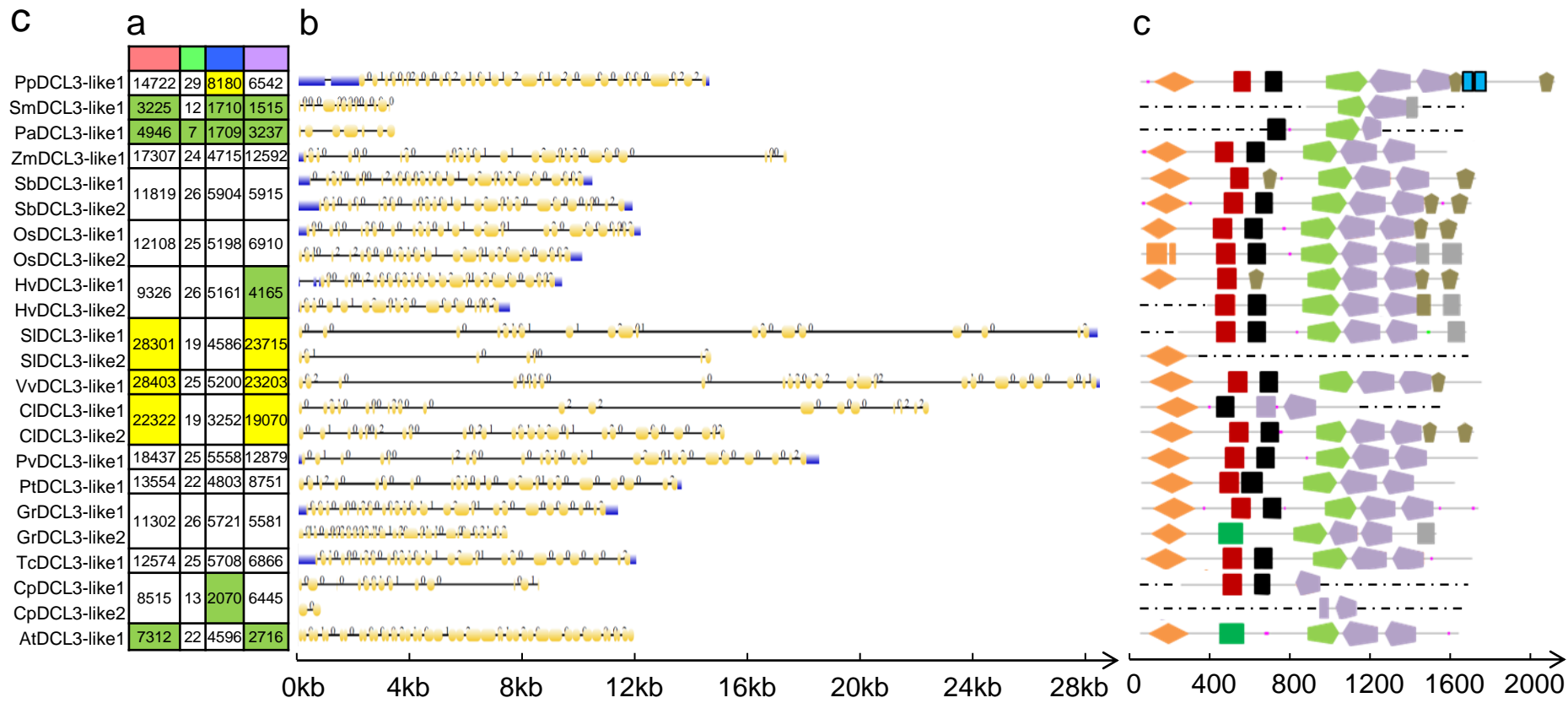
Color at the top of the table in a: ■ Gene length ■ Exon number ■ Exon length ■ Intron length

Color in exons-introns structures in b: ■ CDS ■ UTR — Intron 0 1 2: intron phase

Color in the domain structures in c: ■ Low complexity region ■ Coiled coil regions ■ Signal peptides ■ Transmembrane segments

B

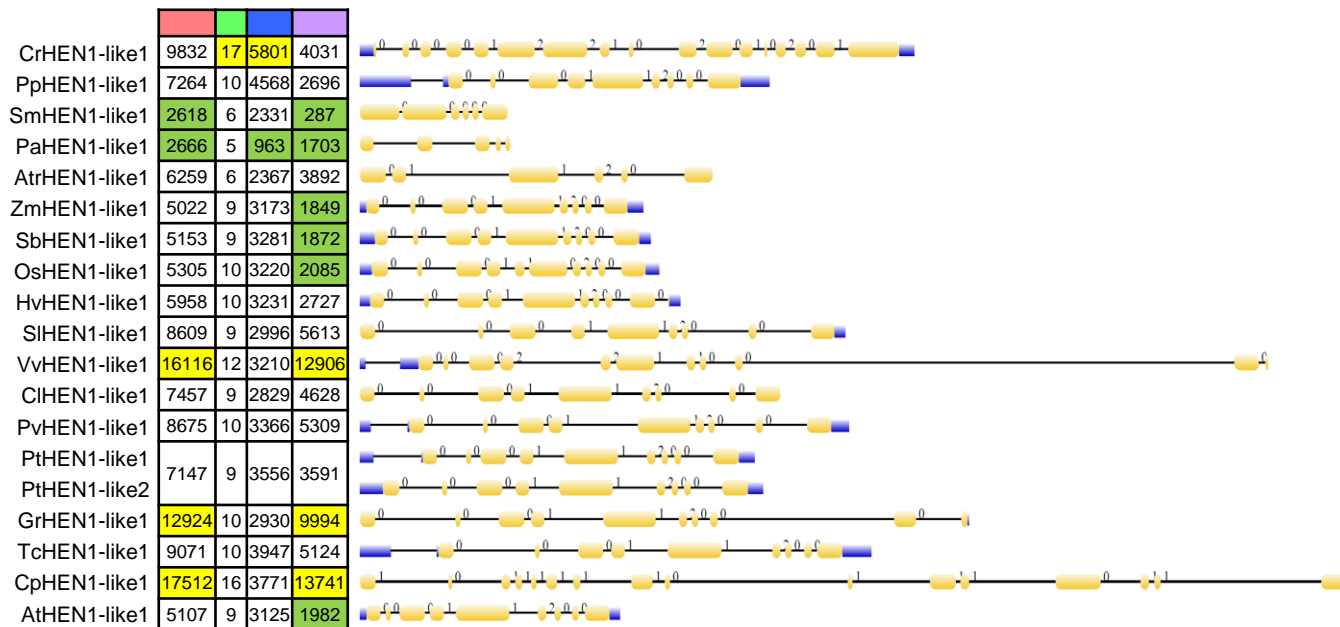




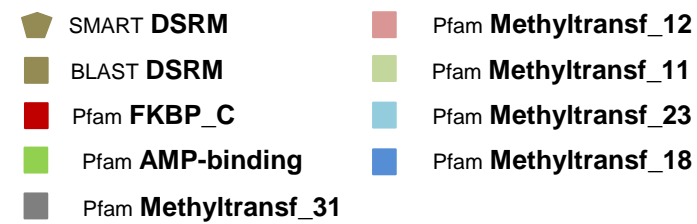
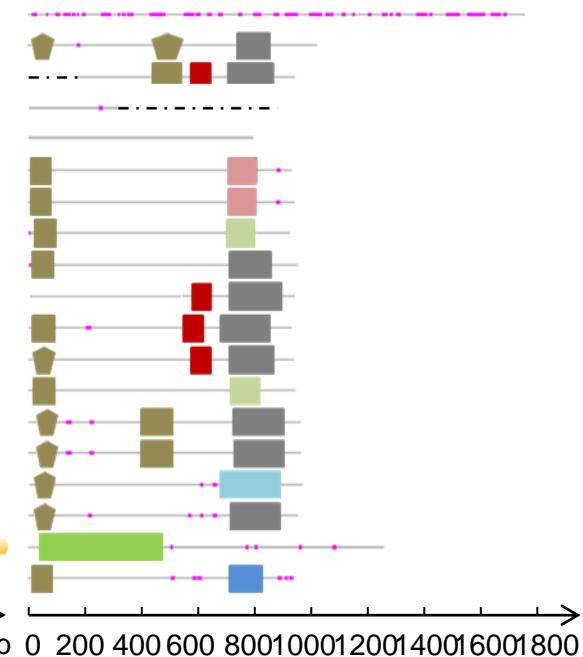
D

a

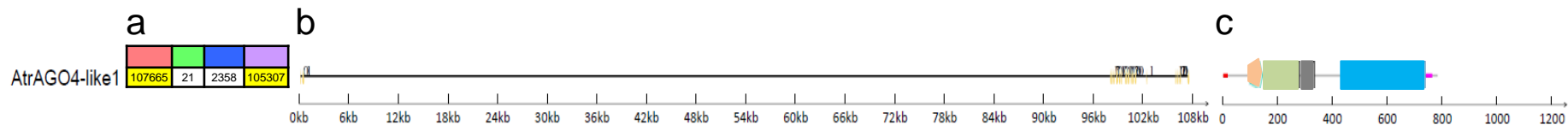
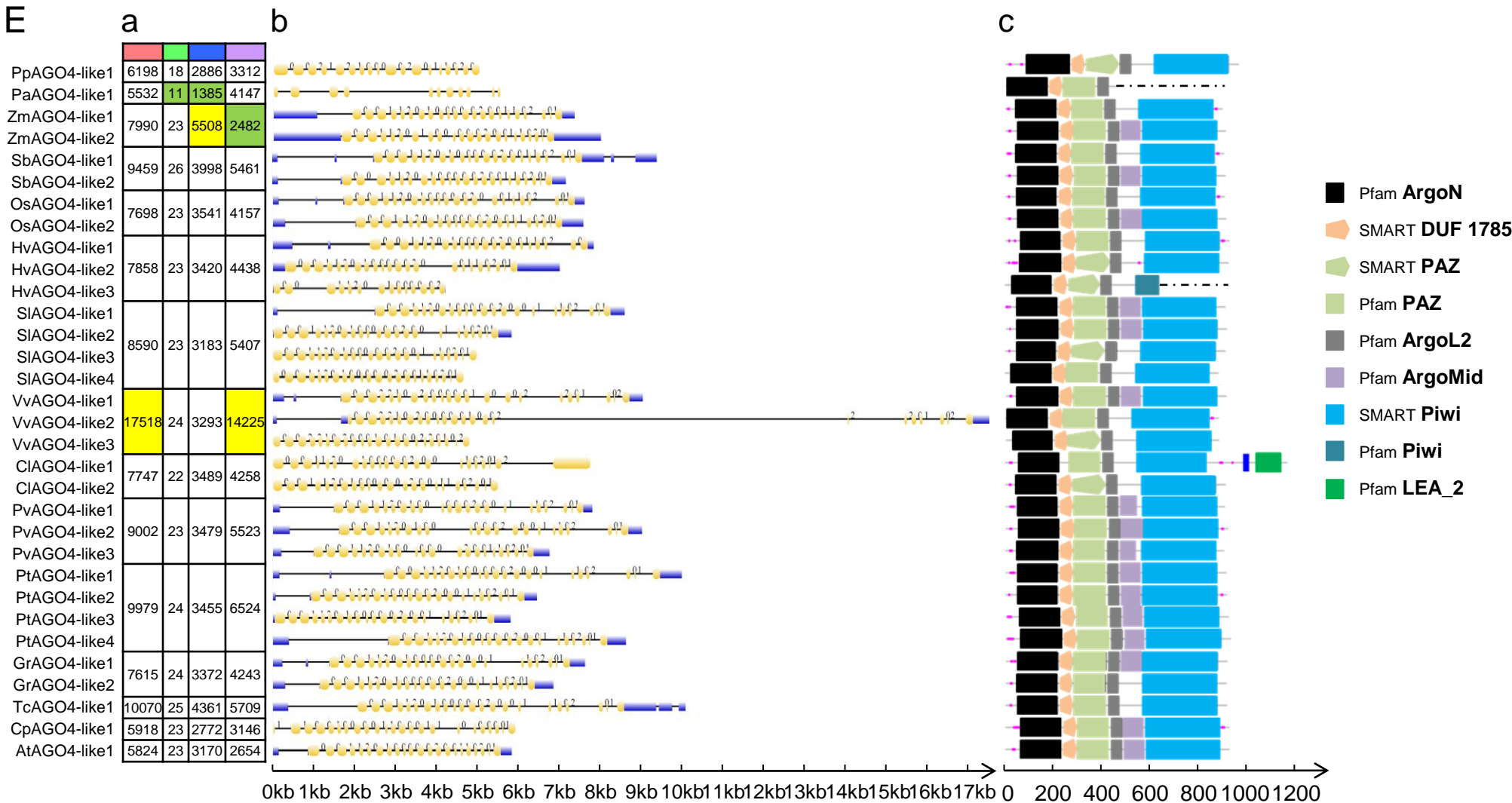
b

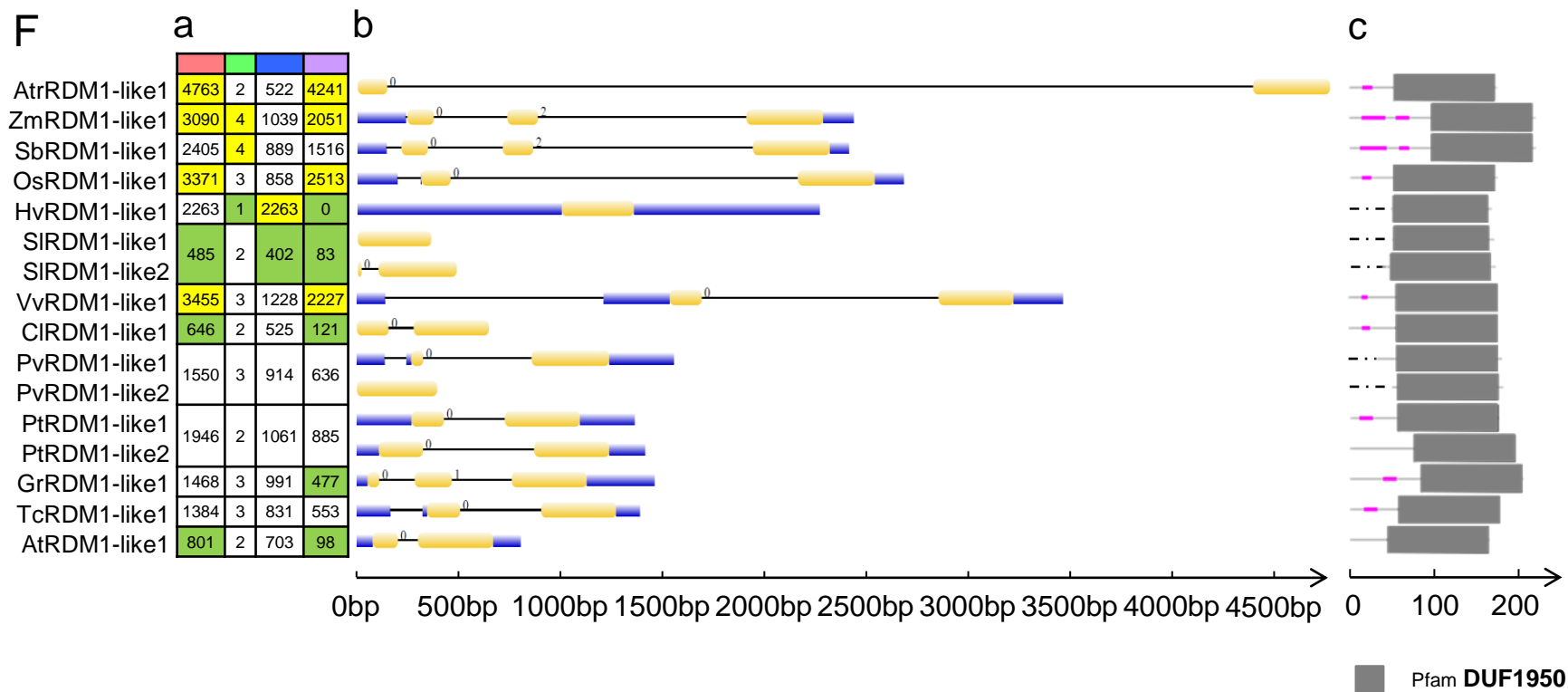


c



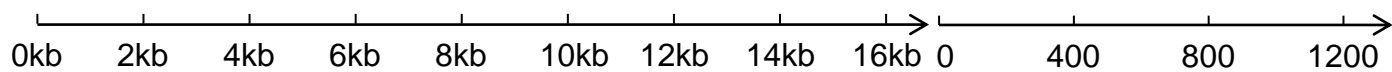
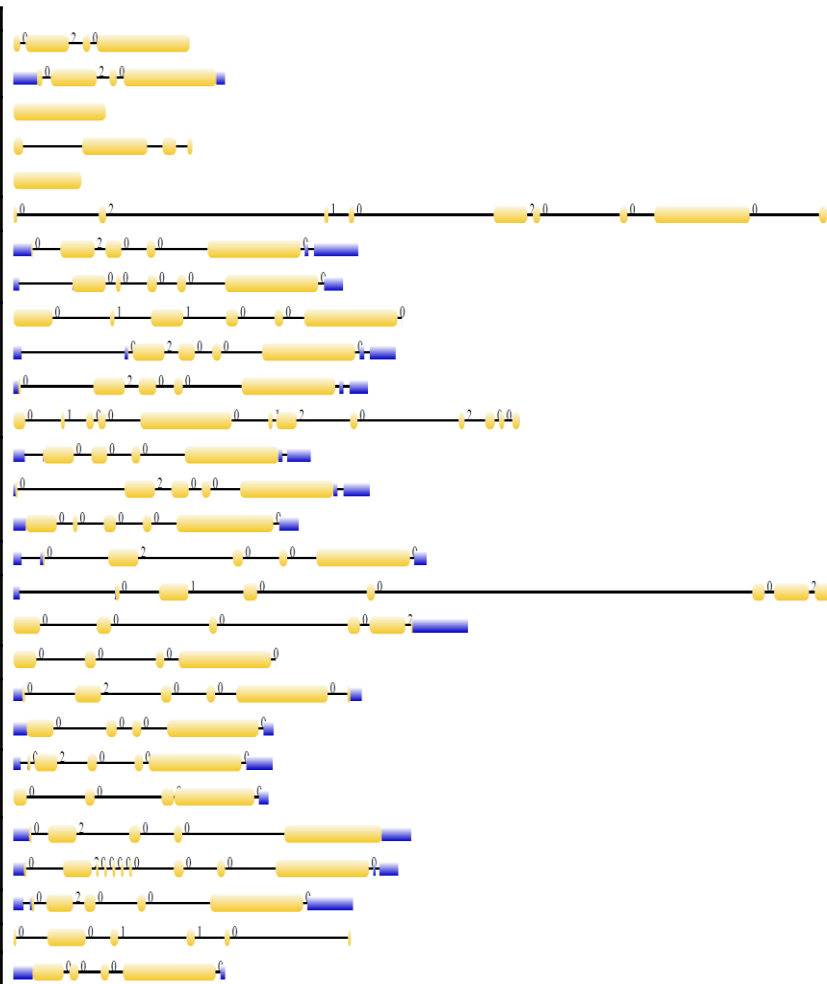
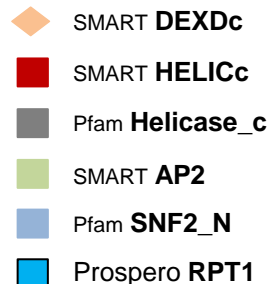
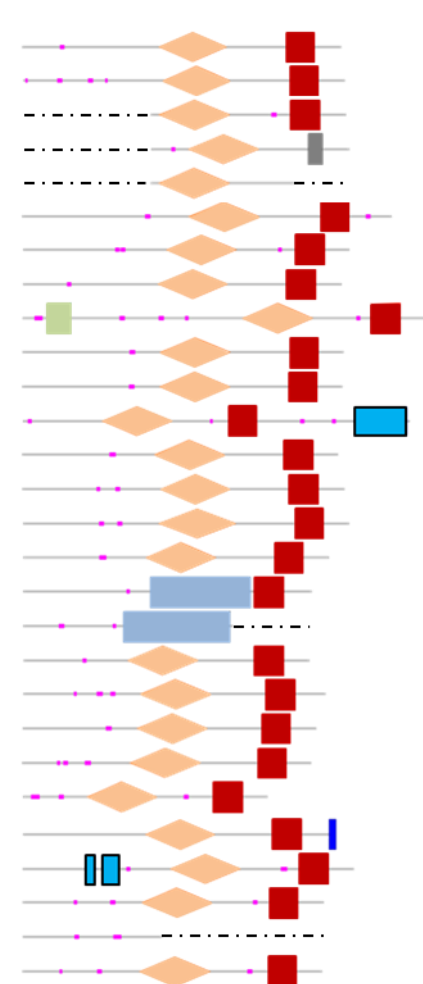
E



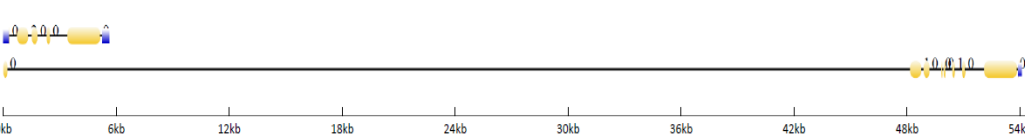
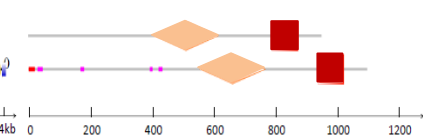


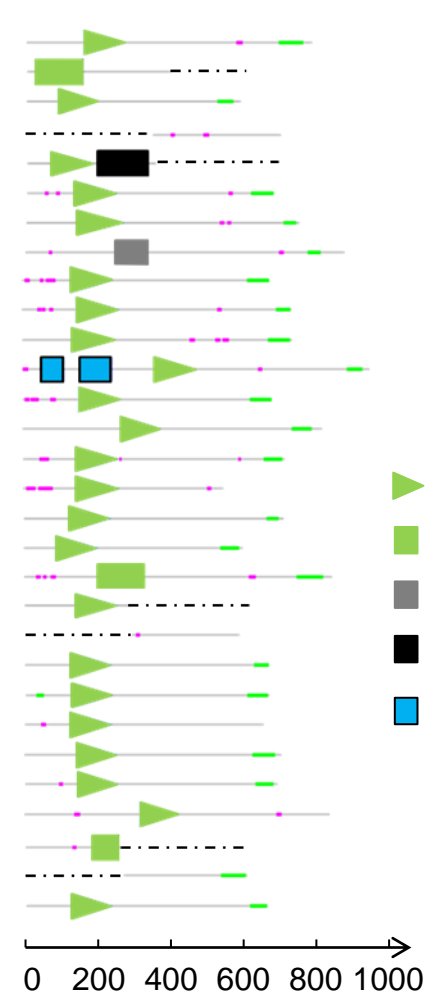
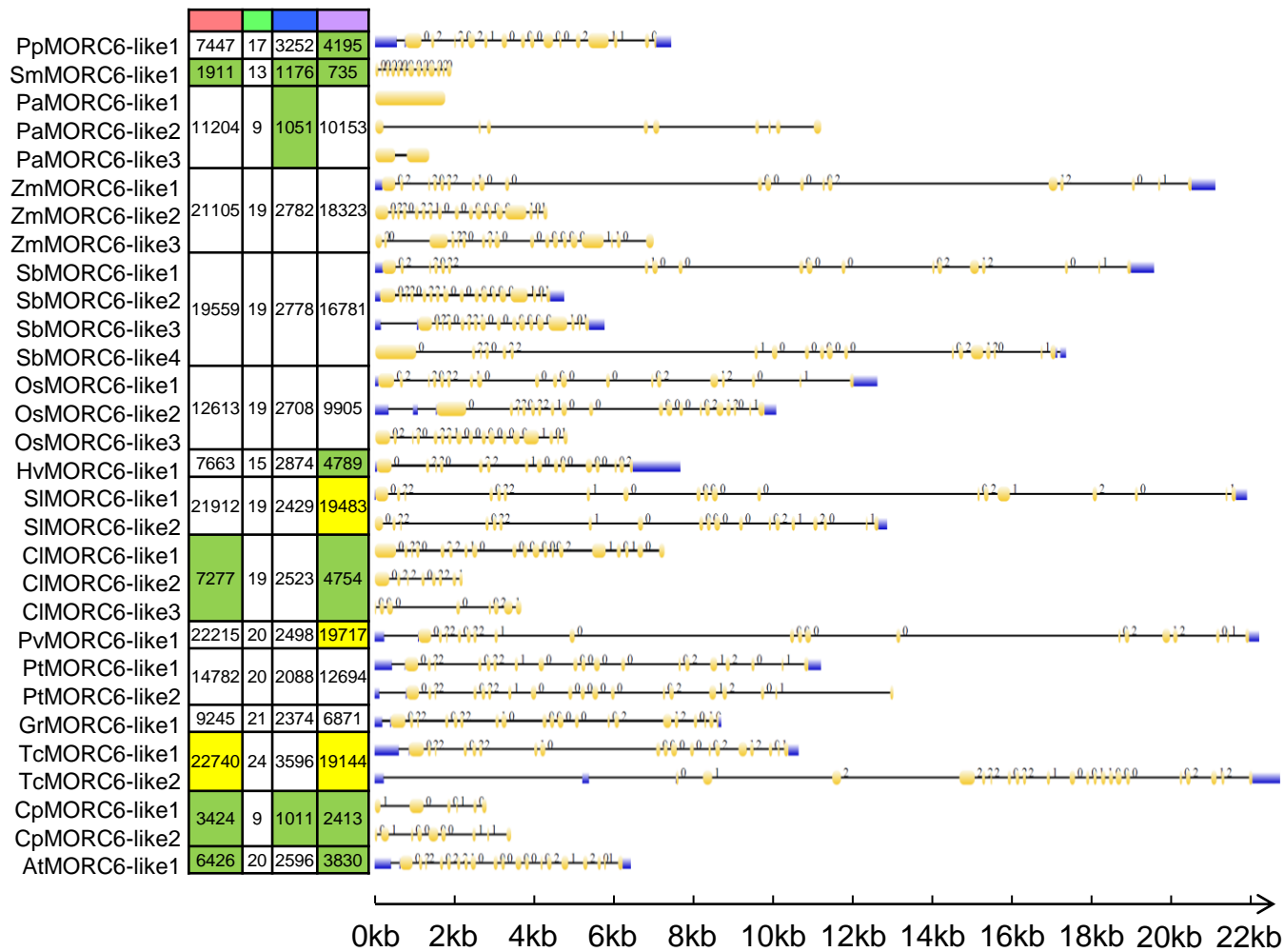
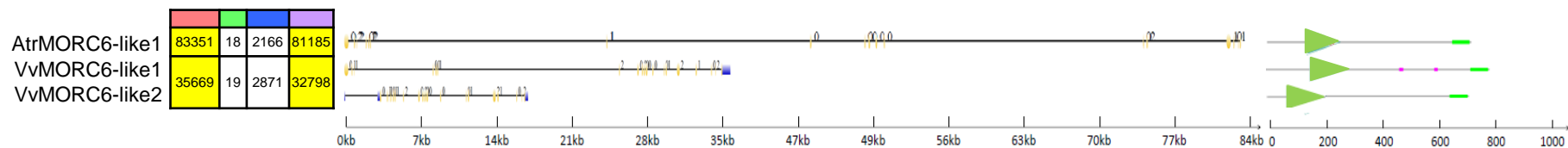
G**a****b**

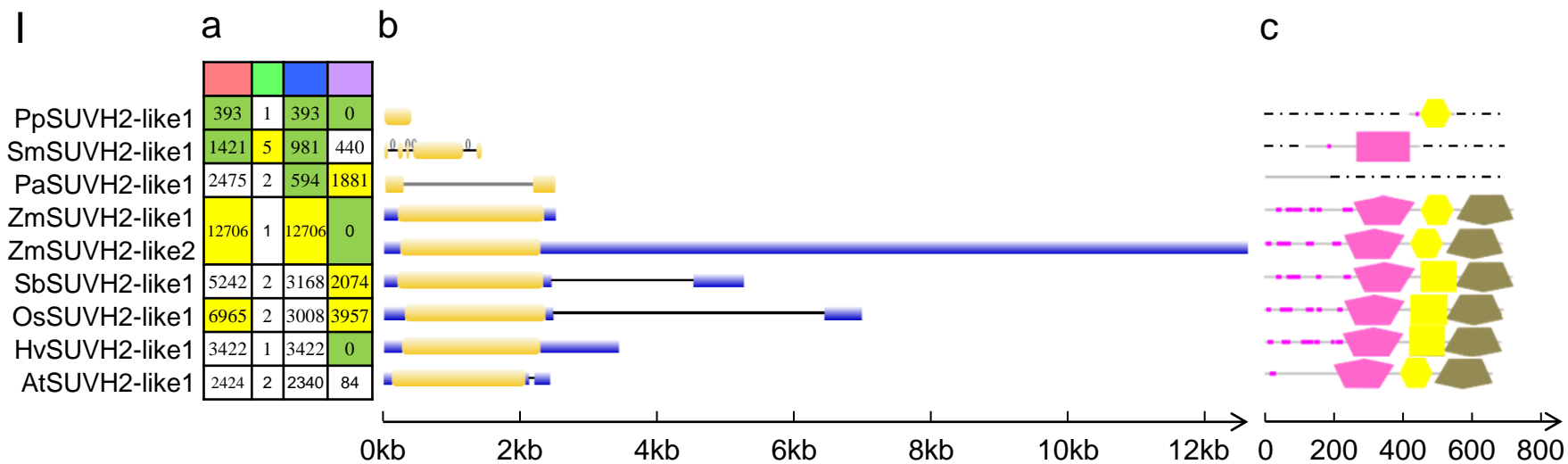
PpDRD1-like1	3988	4	3472	516
PpDRD1-like2				
PaDRD1-like1				
PaDRD1-like2	3372	4	1770	1602
PaDRD1-like3				
AtrDRD1-like1	15347	9	3285	12062
SbDRD1-like1	6488	7	4126	2362
SbDRD1-like2				
OsDRD1-like1				
OsDRD1-like2	9537	12	3447	6090
OsDRD1-like3				
OsDRD1-like4				
HvDRD1-like1				
HvDRD1-like2	6706	6	3465	3241
HvDRD1-like3				
SIDRD1-like1	7778	7	3144	4634
VvDRD1-like1	16190	10	2974	13216
VvDRD1-like2				
CIDRD1-like1	4946	5	2550	2396
PvDRD1-like1	6631	6	3084	3547
PvDRD1-like2				
PtDRD1-like1	5025	7	3211	1814
PtDRD1-like2				
GrDRD1-like1	7543	5	3637	3906
GrDRD1-like2				
TcDRD1-like1	6396	7	3748	2648
CpDRD1-like1	6358	6	1242	5116
AtDRD1-like1	3982	5	3104	878

**c****a****b**

ZmDRD1-like1	54149	9	3478	50671
ZmDRD1-like2				

**c**

H**a****b****c****a****b****c**



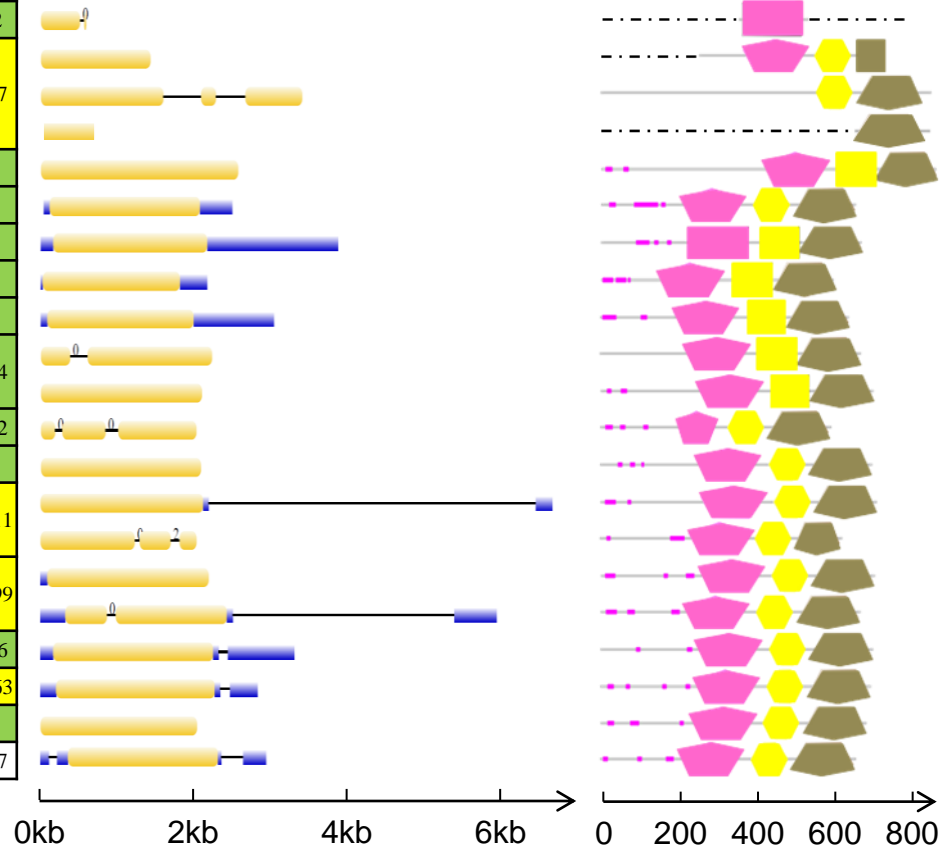
J

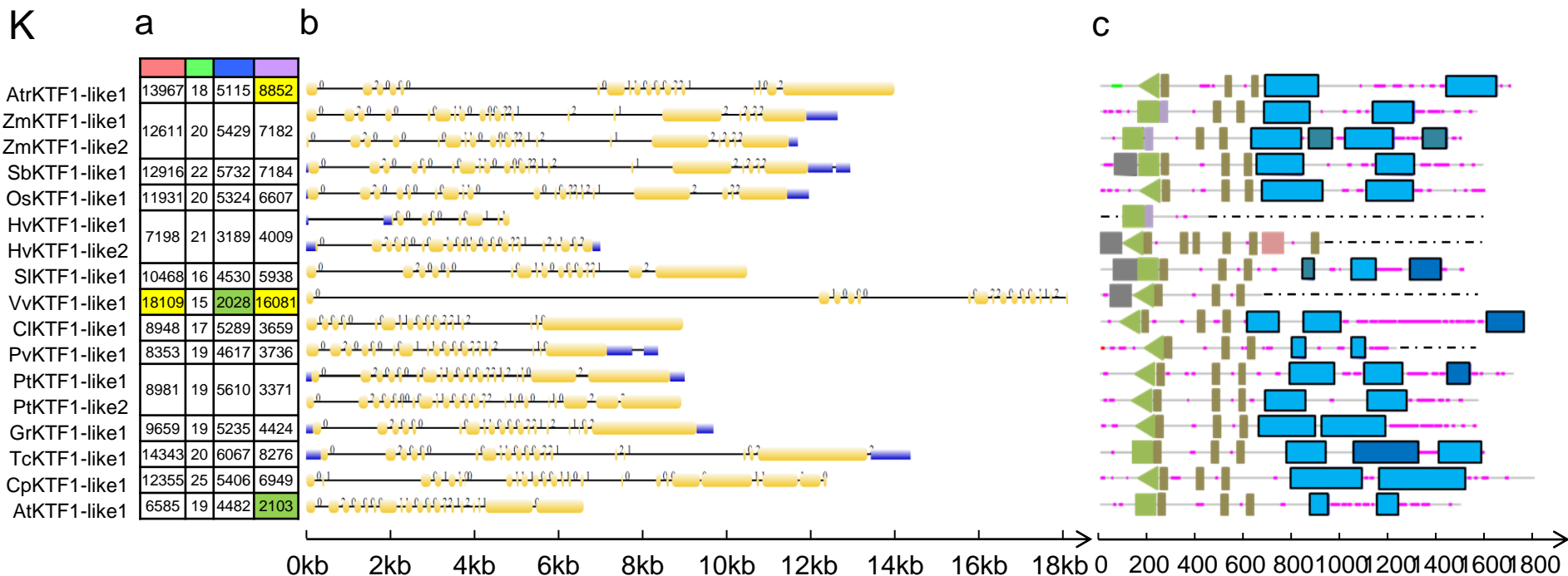
a

b

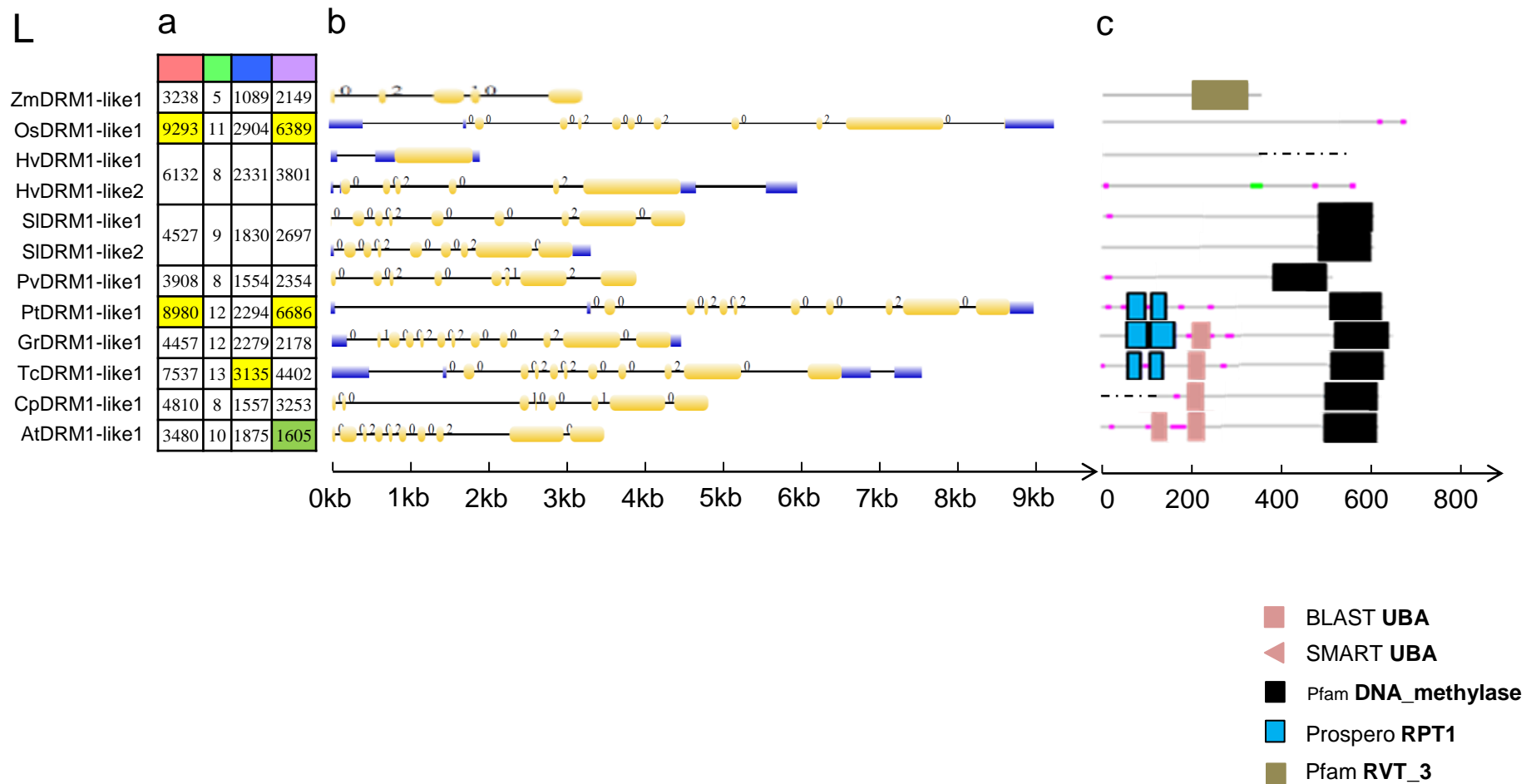
c

SmSUVH9-like1	589	2	537	22
PaSUVH9-like1				
PaSUVH9-like2	3393	3	2526	867
PaSUVH9-like3				
AtrSUVH9-like1	2562	1	2562	0
ZmSUVH9-like1	2449	1	2449	0
SbSUVH9-like1	3857	1	3857	0
OsSUVH9-like1	2157	1	2157	0
HvSUVH9-like1	3023	1	3023	0
SISUVH9-like1	2222	2	1998	224
SISUVH9-like2				
VvSUVH9-like1	2019	3	1767	252
CISUVH9-like1	2079	1	2079	0
PvSUVH9-like1	6804	2	2393	4411
PvSUVH9-like2				
PtSUVH9-like1	5923	3	2924	2999
PtSUVH9-like2				
GrSUVH9-like1	3295	2	3169	126
TcSUVH9-like1	5653	2	2690	2963
CpSUVH9-like1	2034	1	2034	0
AtSUVH9-like1	2971	3	2534	437

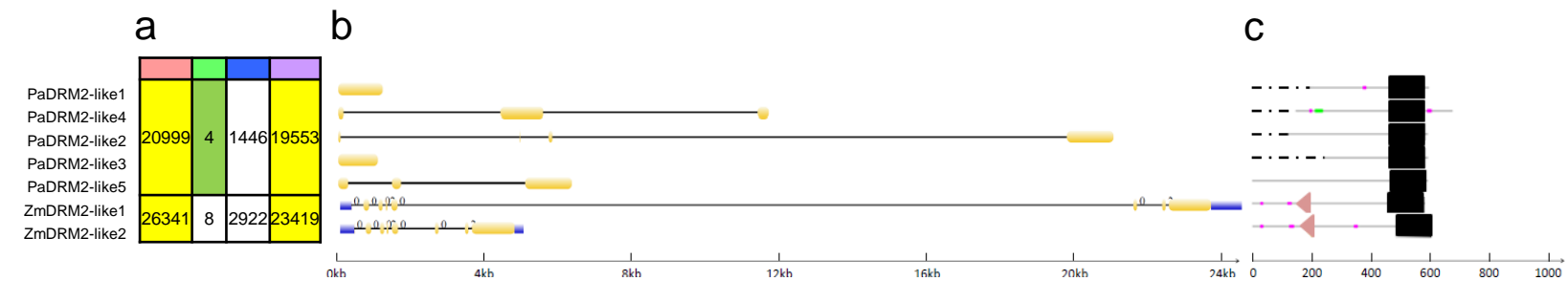
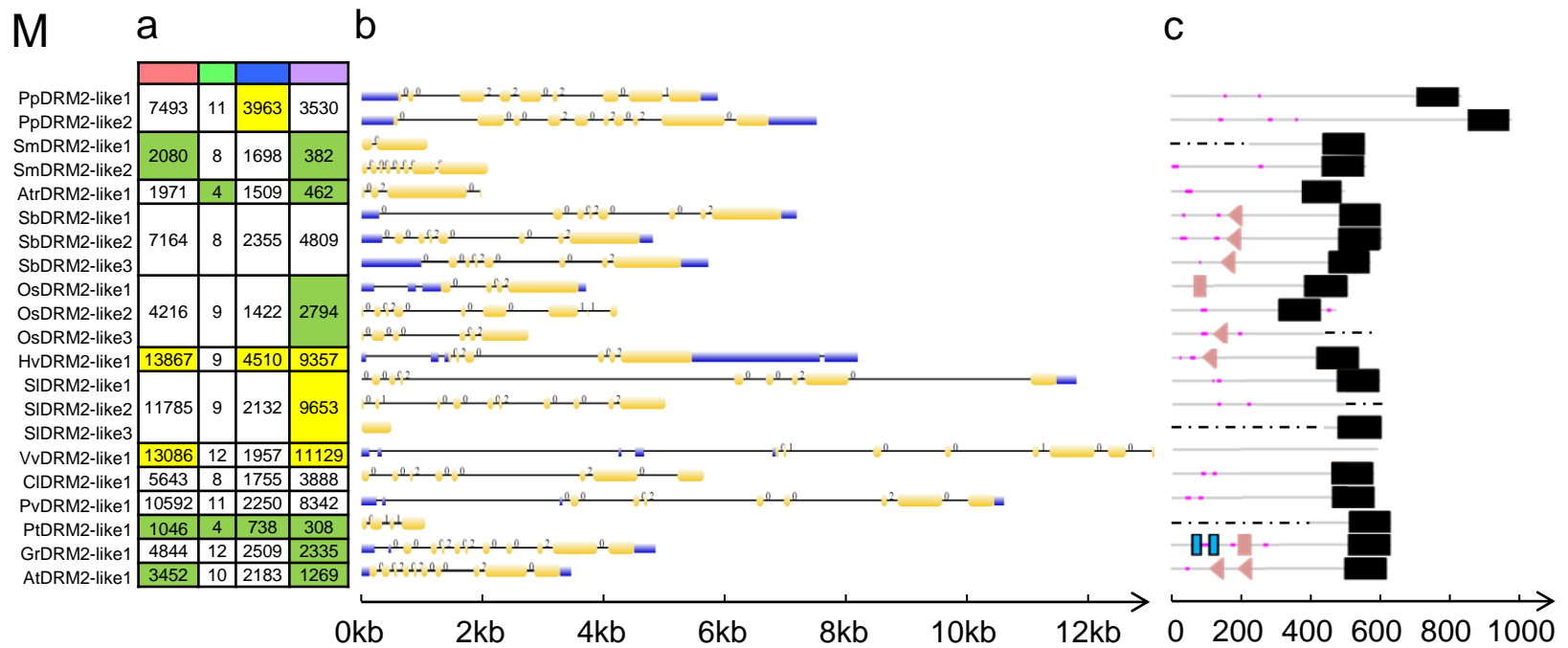




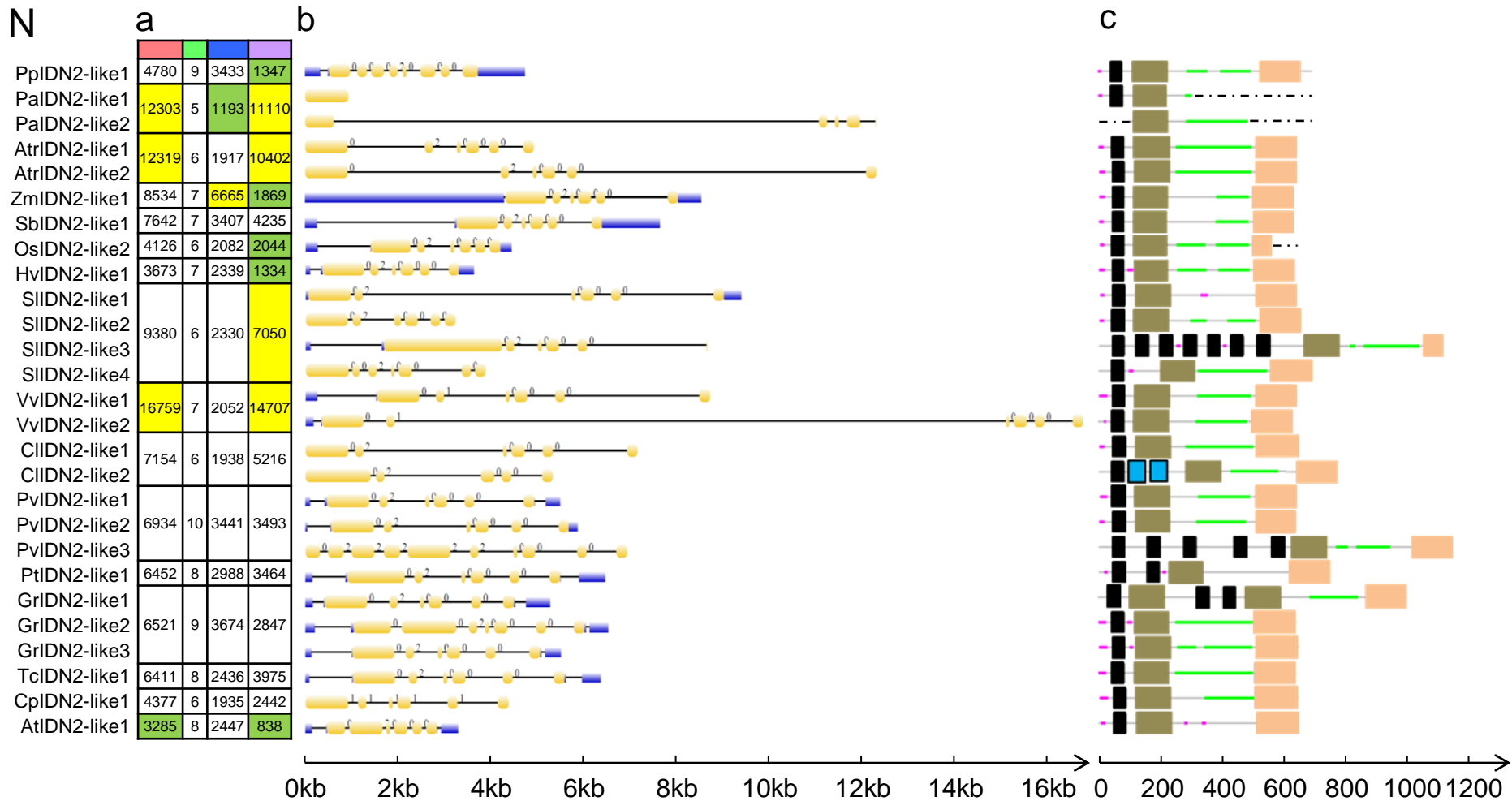
- Pfam **Spt5-N**
- ◀ SMART **NGN**
- Pfam **Spt5-NGN**
- SMART **KOW**
- BLAST **KOW**
- BLAST **CTD**
- Prospero **RPT1**
- Prospero **RPT2**
- Prospero **RPT3**

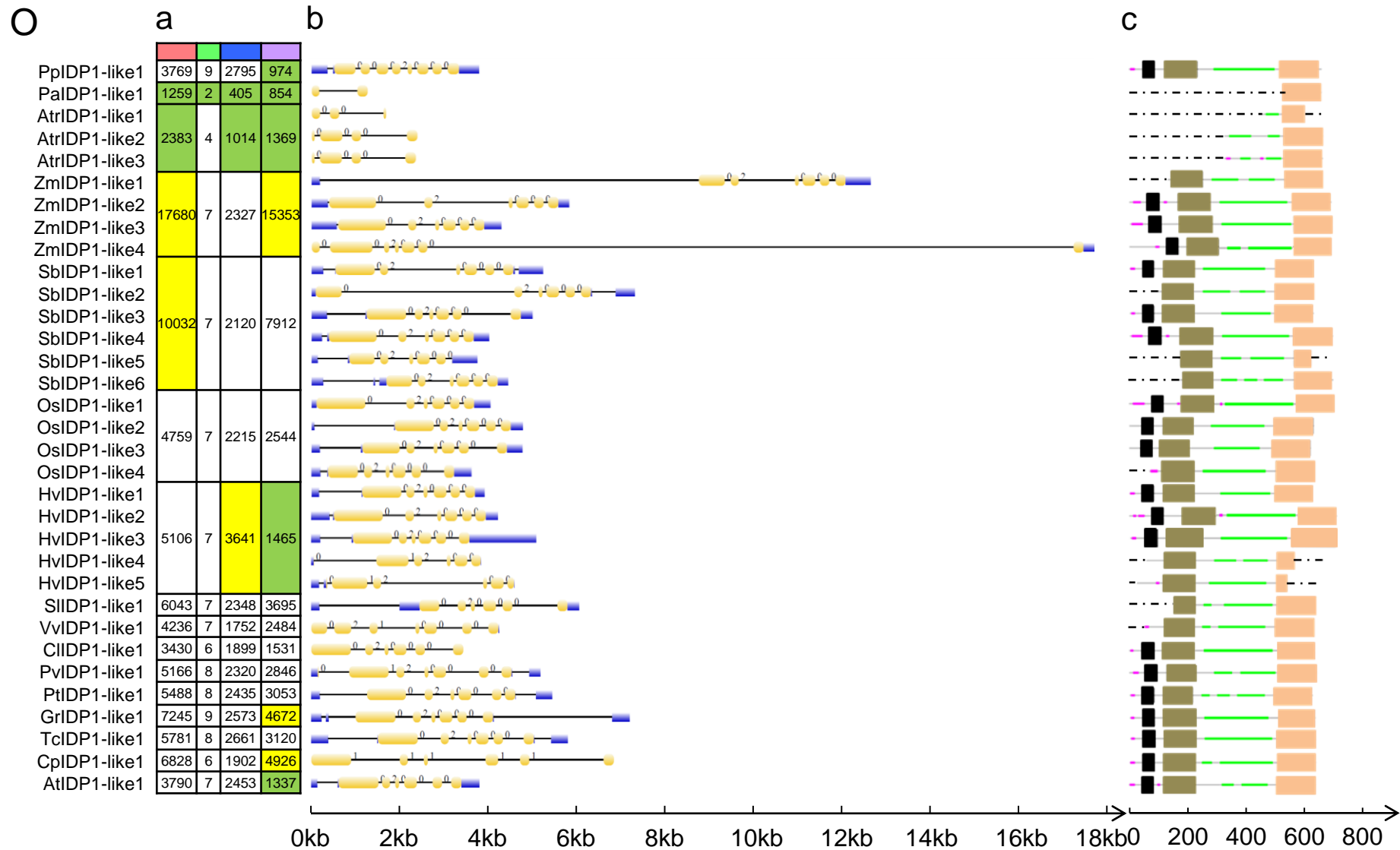


M



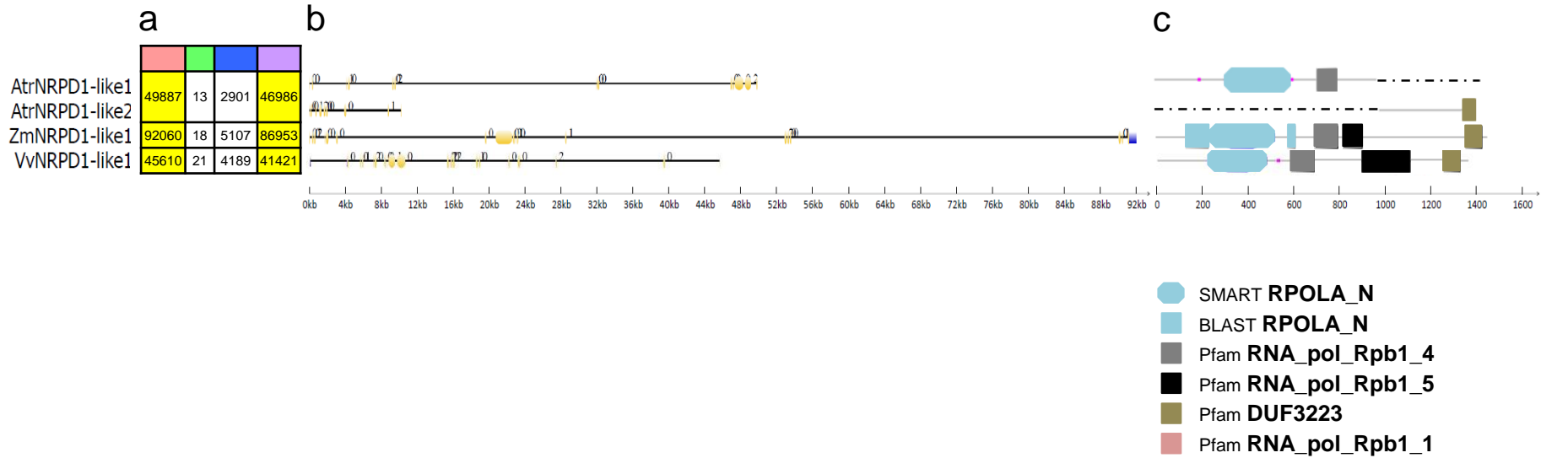
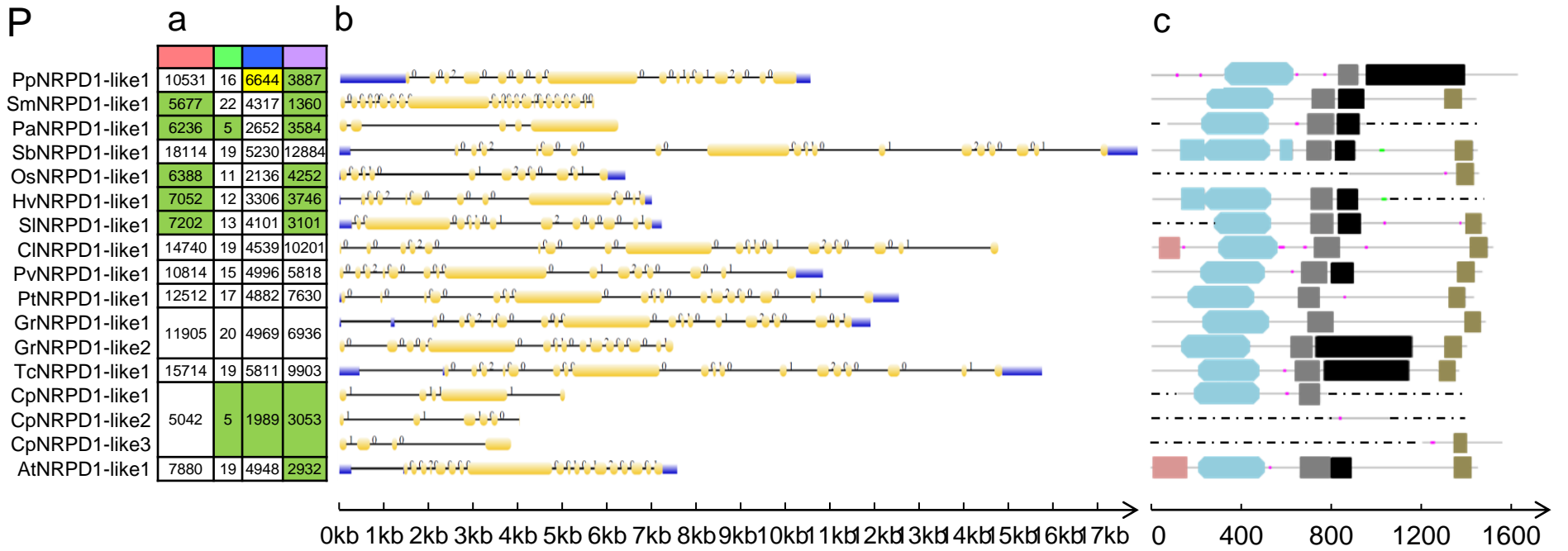
■ BLAST UBA
◀ SMART UBA
■ Pfam DNA_methylase



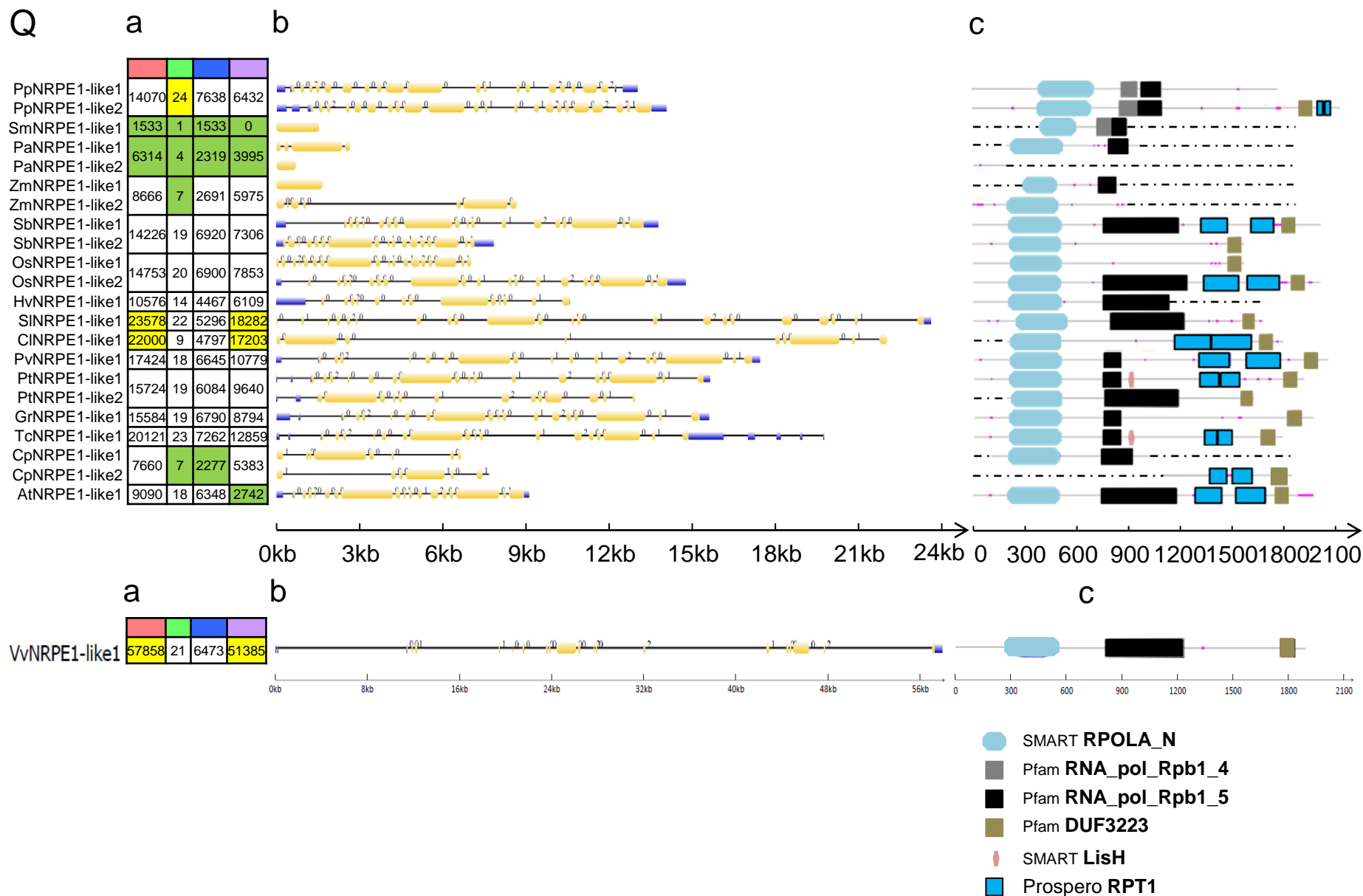


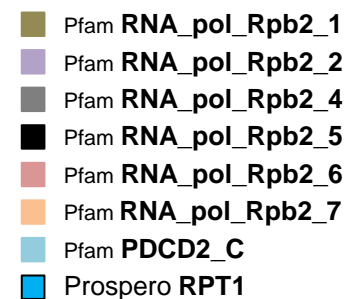
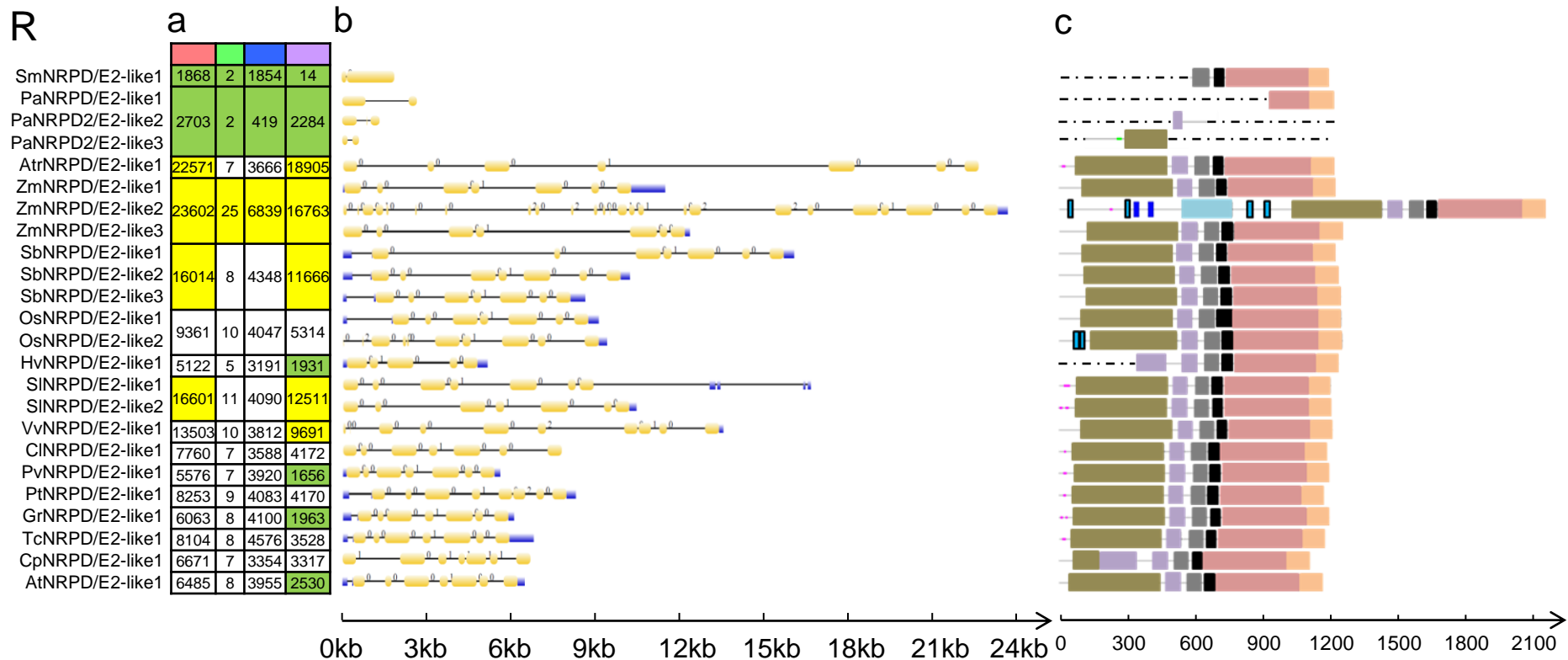
Pfam **zf-XS**
 Pfam **XS**
 Pfam **XH**

P



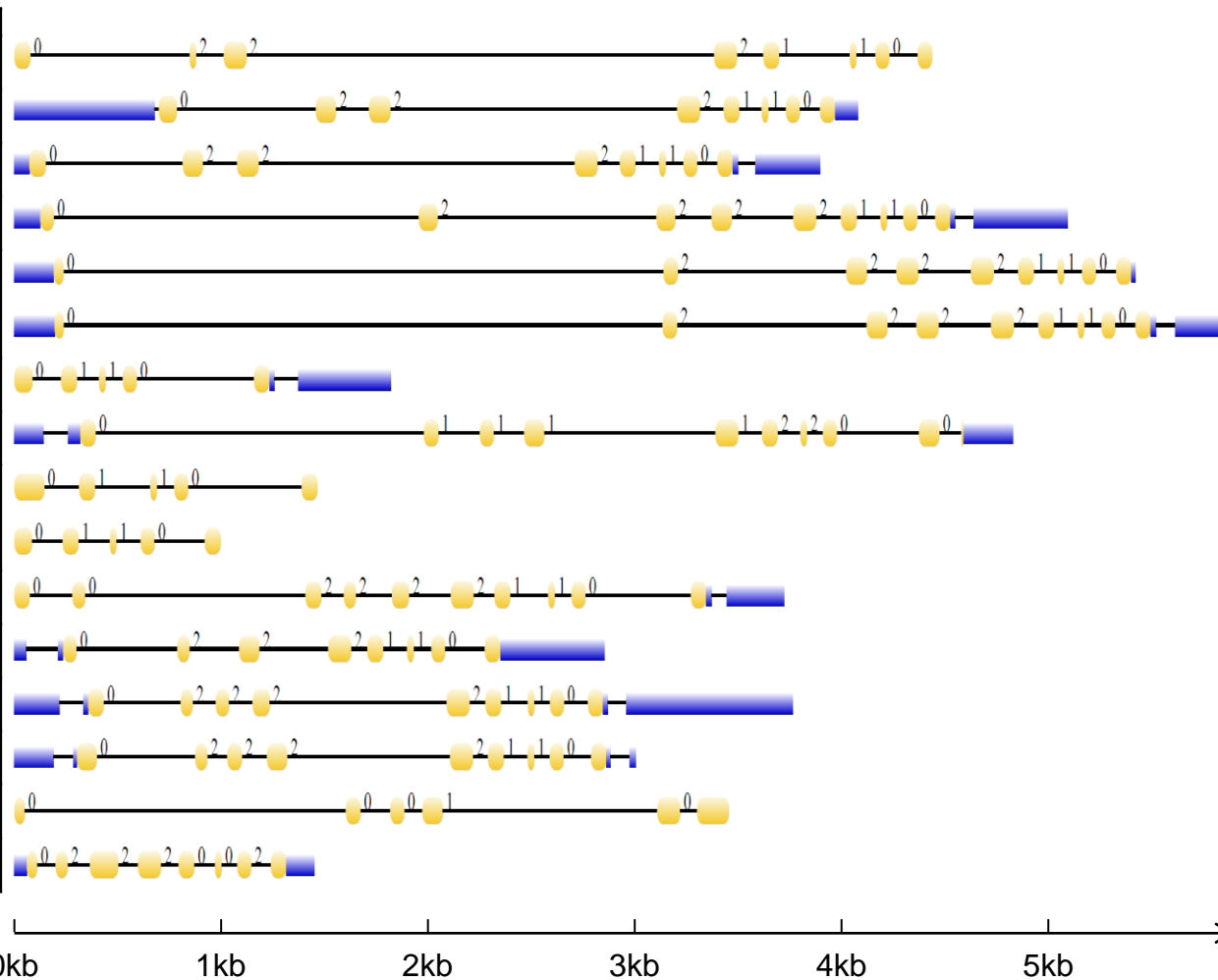
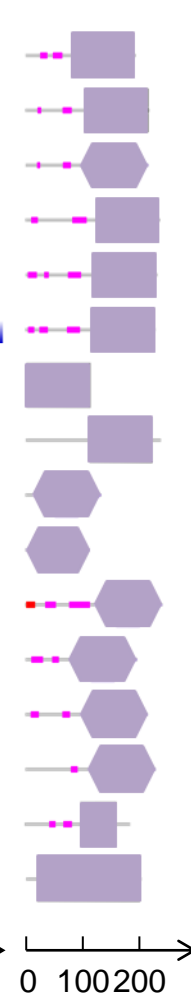
- SMART **RPOLA_N**
- BLAST **RPOLA_N**
- Pfam **RNA_pol_Rpb1_4**
- Pfam **RNA_pol_Rpb1_5**
- Pfam **DUF3223**
- Pfam **RNA_pol_Rpb1_1**





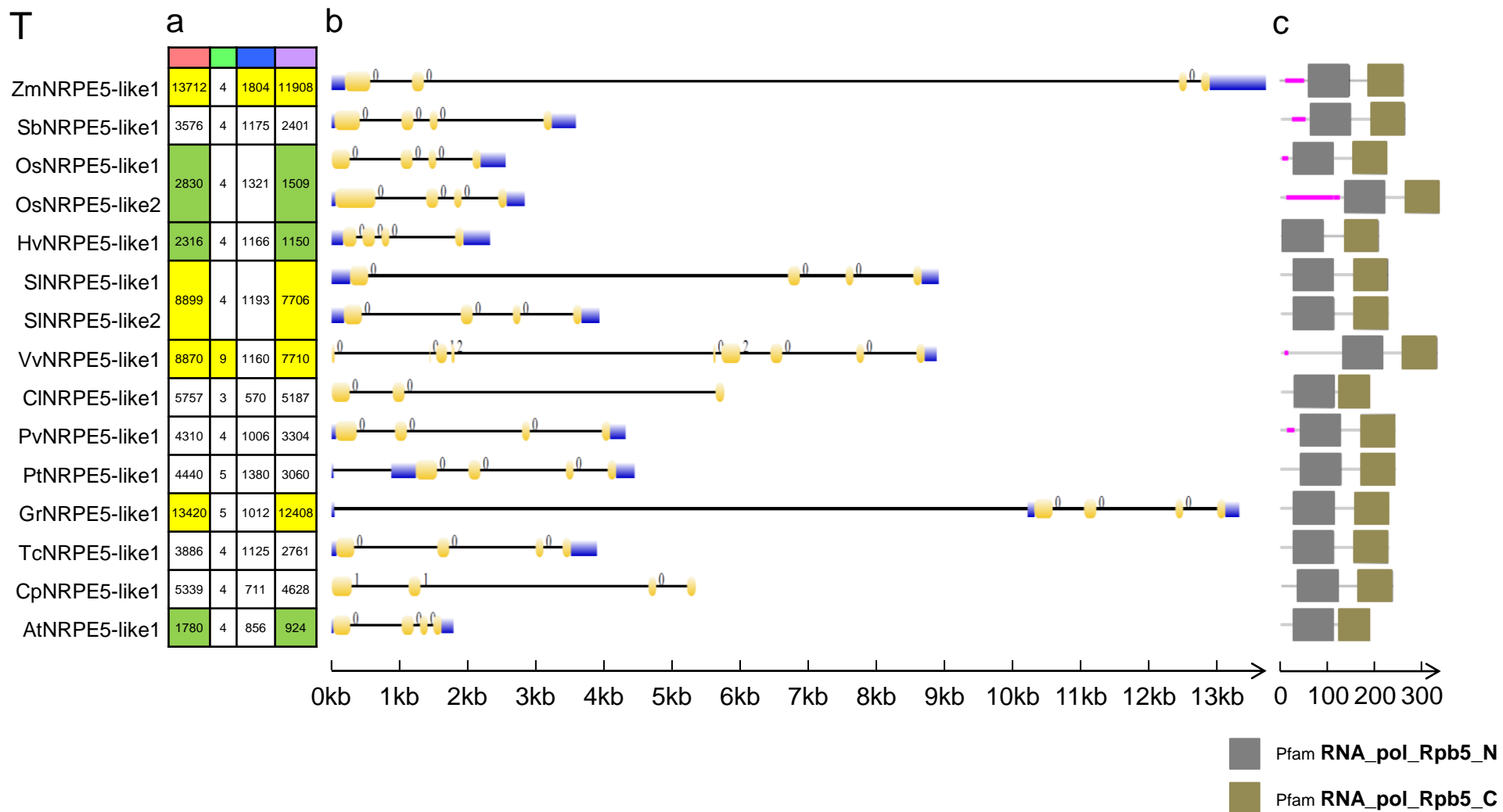


S**a**

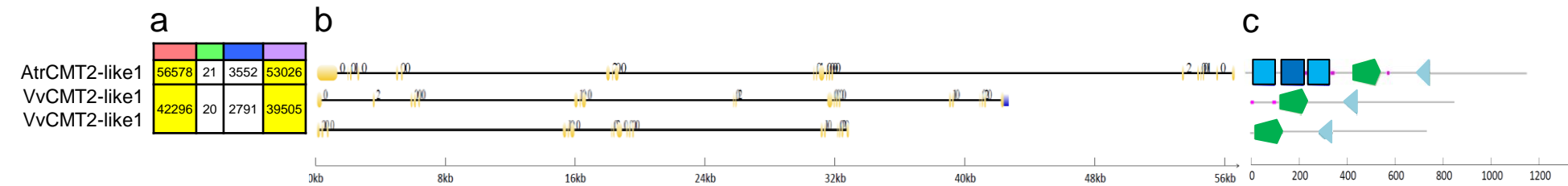
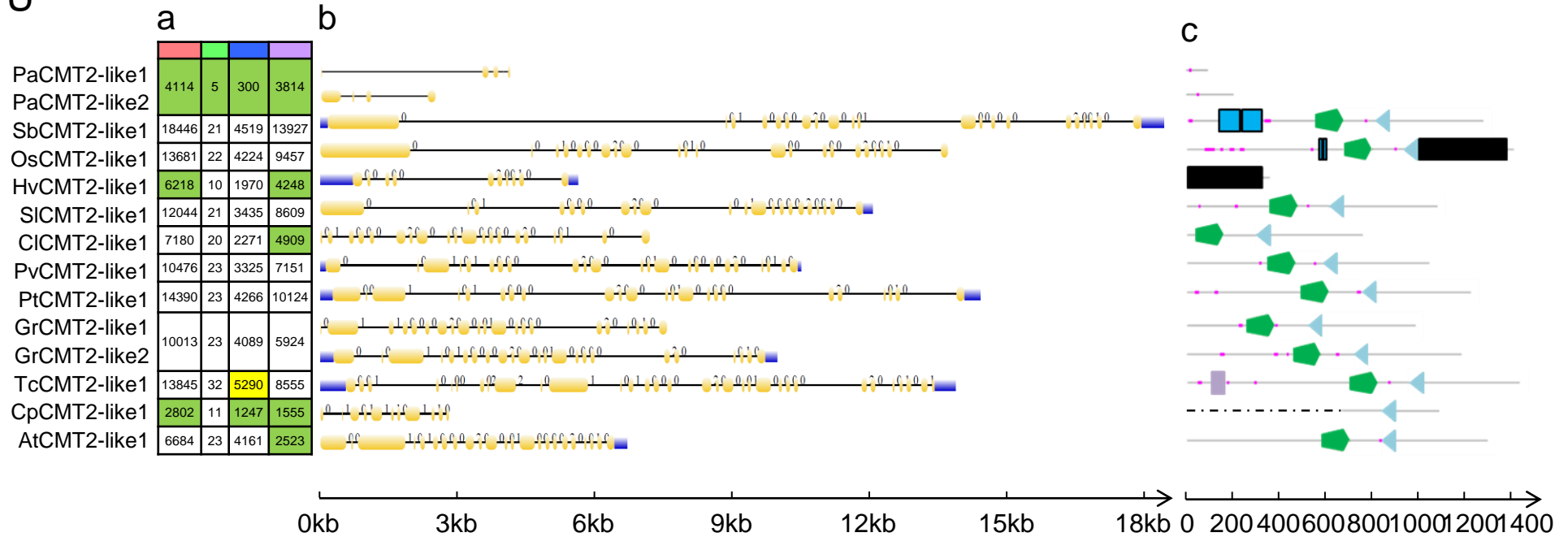
AtrNRPD/E4-like1	4428	8	588	3840
ZmNRPD/E4-like1	6453	9	1444	5009
SbNRPD/E4-like1	4378	9	1067	3311
OsNRPD/E4-like1	5080	10	1319	3761
HvNRPD/E4-like1	5891	10	1184	4707
HvNRPD/E4-like2				
SINRPD/E4-like1	1815	6	815	1000
VvNRPD/E4-like1	4816	11	1155	3661
CINRPD/E4-like1	1463	5	405	1058
CINRPD/E4-like2				
PvNRPD/E4-like1	3713	11	1030	2683
PtNRPD/E4-like1	2926	9	1180	1746
GrNRPD/E4-like1	3871	11	1713	2158
TcNRPD/E4-like1	3249	11	948	2301
CpNRPD/E4-like1	3447	6	558	2889
AtNRPD/E4-like1	1447	8	814	633

b**c**

 Pfam **RNA_pol_Rpb4**
 SMART **RPOL4c**

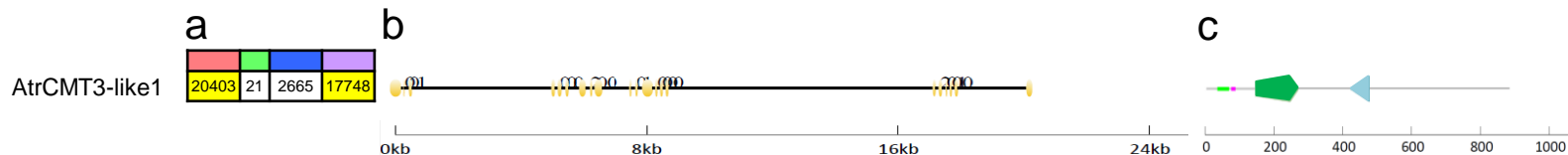
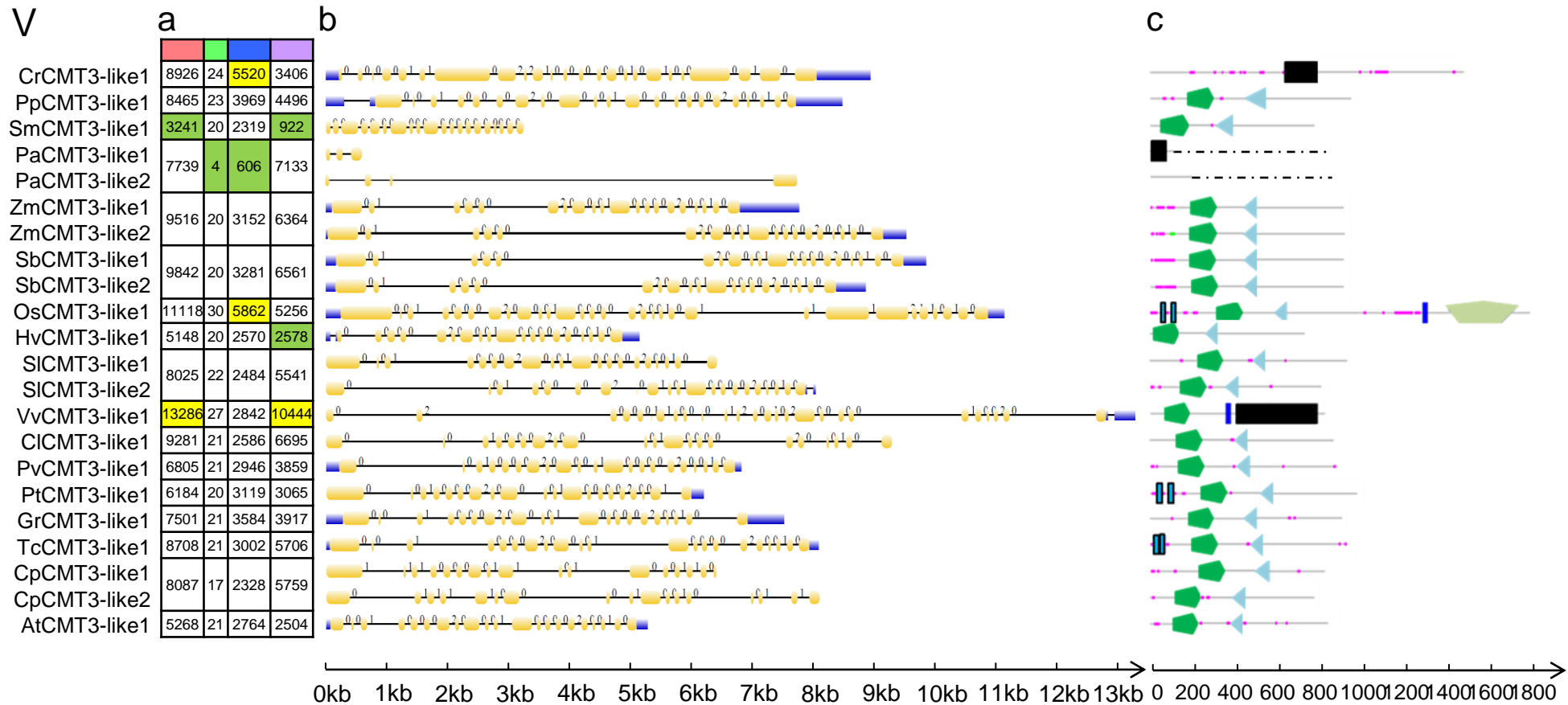


U



- ▮ SMART **BAH**
- ▮ SMART **CHROMO**
- ▮ Pfam **RNA_methylase**
- ▮ Pfam **Ribosomal_L35p**
- ▮ Prospero **RPT1**

V



c

- SMART **BAH**
- SMART **CHROMO**
- Pfam **RNA_methylase**
- SMART **S_TKc**
- Prospero **RPT1**
- Prospero **RPT2**

W

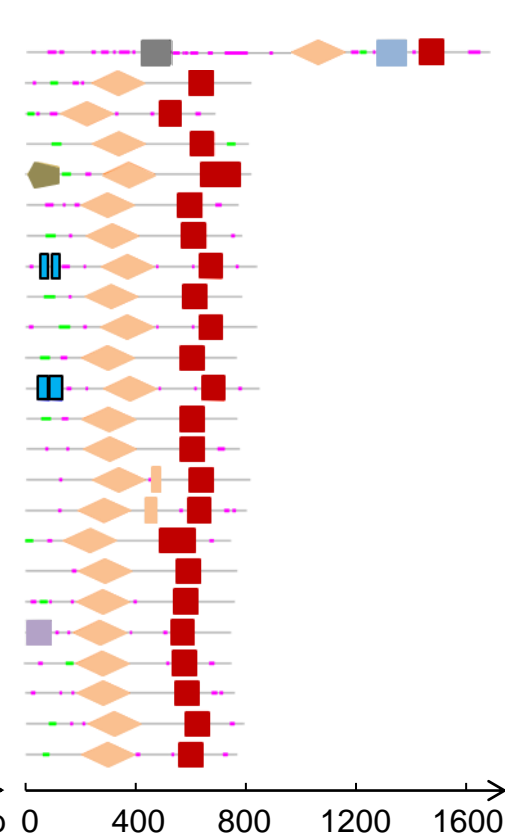
a

b

CrDDM1-like1	22621	34	6342	16279
PpDDM1-like1	7153	17	3652	3501
SmDDM1-like1	2688	12	2055	633
PaDDM1-like1	13905	16	2415	11490
PaDDM1-like2	17482	15	2301	15181
AtrDDM1-like1	6719	15	3584	3135
ZmDDM1-like1	6719	15	3584	3135
ZmDDM1-like2	6731	15	3187	3544
SbDDM1-like1	6731	15	3187	3544
SbDDM1-like2	6307	14	3121	3186
OsDDM1-like1	6307	14	3121	3186
OsDDM1-like2	6791	13	2634	4157
HvDDM1-like1	10457	15	2547	7910
SIDD1-like1	7510	17	2403	5107
SIDD1-like2	7173	15	2229	4944
VvDDM1-like1	6013	16	2809	3204
CIDD1-like1	6013	16	2809	3204
PvDDM1-like1	7347	16	2859	4488
PtDDM1-like1	7347	16	2859	4488
PtDDM1-like2	4966	15	2247	2719
GrDDM1-like1	4966	15	2247	2719
TcDDM1-like1	6062	16	3302	2760
CpDDM1-like1	5378	15	2373	3005
AtDDM1-like1	4123	16	2598	1525

0kb 2kb 4kb 6kb 8kb 10kb 12kb 14kb 16kb 18kb 20kb 22kb

c



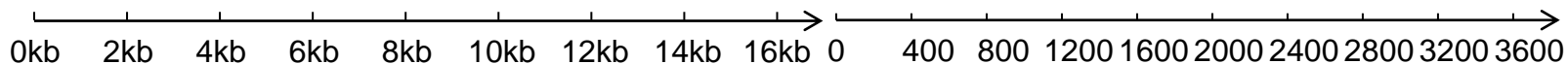
- ◆ SMART **DEXDc**
- BLAST **DEXDc**
- SMART **HELICc**
- Pfam **Nol1_Nop2_Fmu**
- Pfam **SNF2_N**
- Pfam **DBINO**
- ▤ SMART **cNMP**
- Prospero **RPT1**

X

a

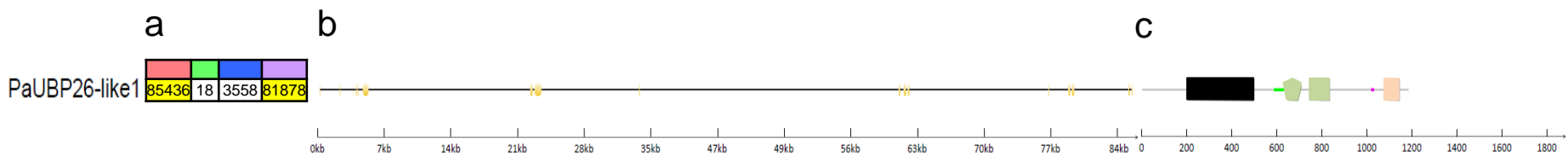
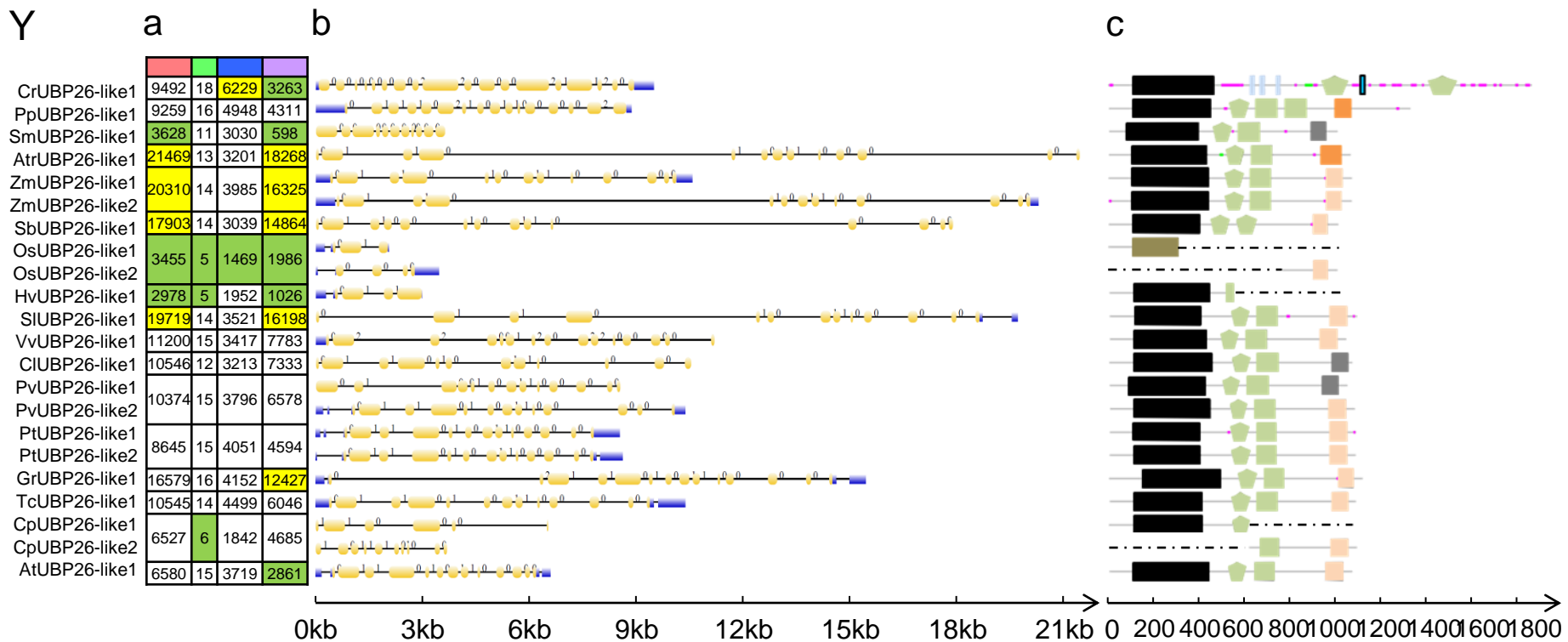
b

CrJMJ14-like1			
CrJMJ14-like2	16761	22	12472
PpJMJ14-like1	9456	12	6573
PpJMJ14-like2			2883
SmJMJ14-like1	2869	9	2403
PaJMJ14-like1			466
PaJMJ14-like2	15730	10	3786
AtrJMJ14-like1			11944
AtrJMJ14-like2	7920	11	3573
OsJMJ14-like1			4347
HvJMJ14-like1	5799	11	3422
SlJMJ14-like1	7850	12	4590
VvJMJ14-like1	7968	11	2958
CtJMJ14-like1	10762	16	3619
PvJMJ14-like1	7310	11	3219
PtJMJ14-like1	6866	12	3751
GrJMJ14-like1	6263	12	3213
GrJMJ14-like2			3050
TcJMJ14-like1	7488	11	3855
TcJMJ14-like2			3633
TcJMJ14-like3	11114	13	4842
CpJMJ14-like1			6272
AtJMJ14-like1	4187	7	2295
	5195	12	3319
			1892
			1876



c

- SMART **JmiN**
- SMART **BRIGHT**
- SMART **PHD**
- SMART **JmiC**
- Pfam **zf-C5HC2**
- SMART **FYRN**
- Pfam **FYRN**
- SMART **FYRC**
- Pfam **PLU-1**
- Prospero **RPT4**
- Prospero **RPT5**



- Pfam **UCH**
- SMART **UIM**
- SMART **DUSP**
- BLAST **DUSP**
- SMART **UBQ**
- BLAST **UBQ**
- Pfam **ubiquitin**
- Pfam **UCH_1**
- Prospero **RPT1**

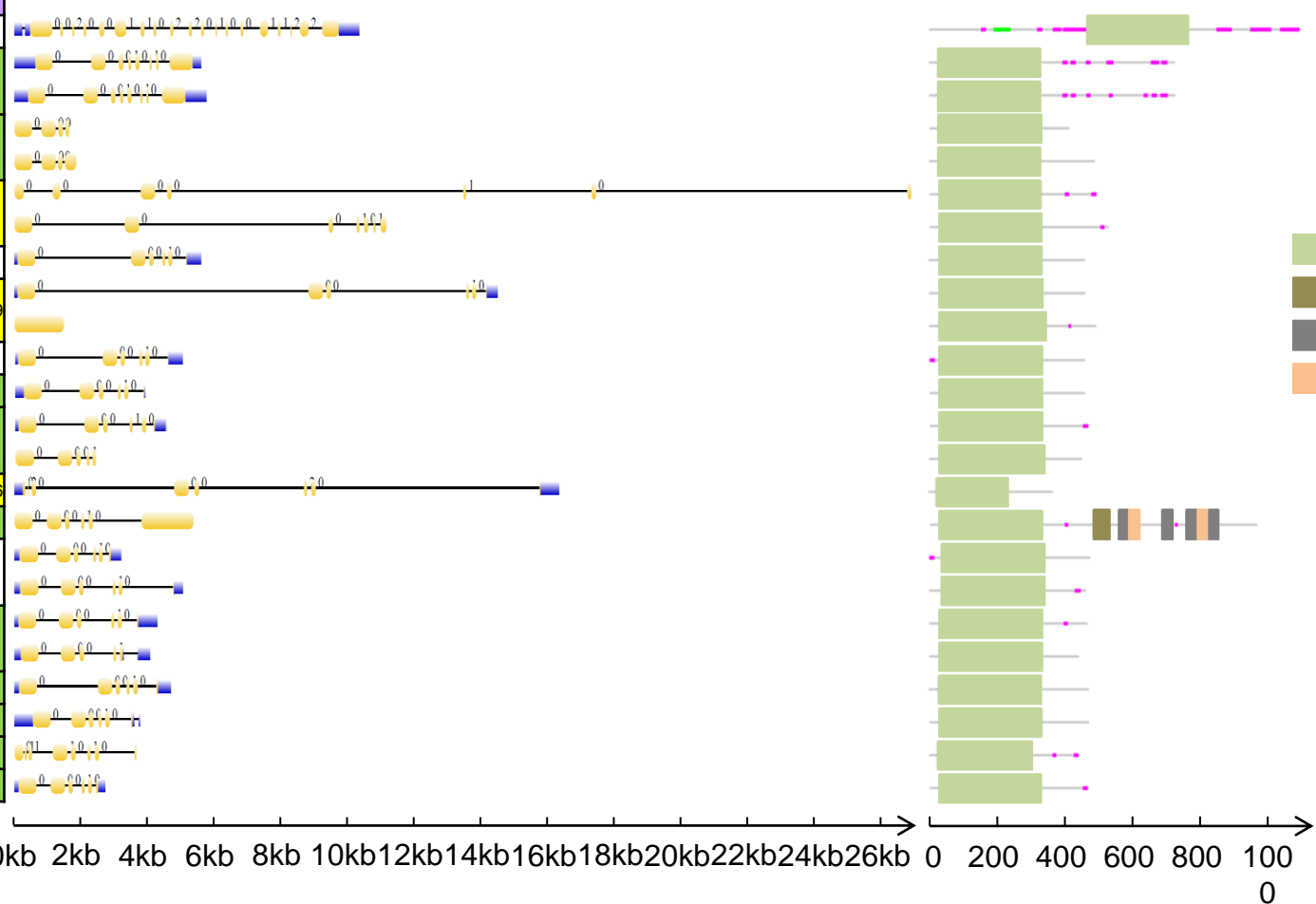
Z

a

b

c

CrHDA6-like1	10336	20	4252	6084
PpHDA6-like1	5758	8	3204	2554
PpHDA6-like2				
SmHDA6-like1	1853	4	1467	386
SmHDA6-like2				
AtrHDA6-like1	26910	7	1479	25431
AtrHDA6-like2				
ZmHDA6-like1	5601	6	1892	3709
SbHDA6-like1	14483	6	1774	12709
SbHDA6-like2				
OshDA6-like1	5014	6	1864	3150
HvHDA6-like1	3888	6	1643	2245
SIHDA6-like1	4505	6	1814	2691
SIHDA6-like2				
VvHDA6-like1	16332	8	1896	14436
CIHDA6-like1	5363	6	2901	2462
PvHDA6-like1	5052	6	1813	3239
PvHDA6-like2				
PtHDA6-like1	4278	6	2073	2205
PtHDA6-like2				
GrHDA6-like1	4679	6	1918	2761
TcHDA6-like1	3763	7	2027	1736
CpHDA6-like1	3654	8	1329	2325
AtHDA6-like1	2724	6	1746	978

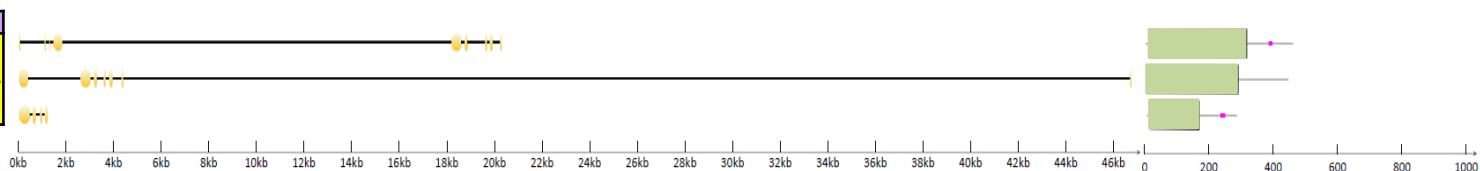


a

b

c

PaHDA6-like1				
PaHDA6-like2	46623	7	1320	45303
PaHDA6-like3				



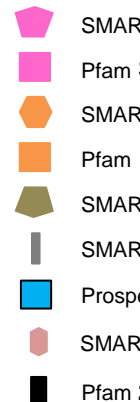
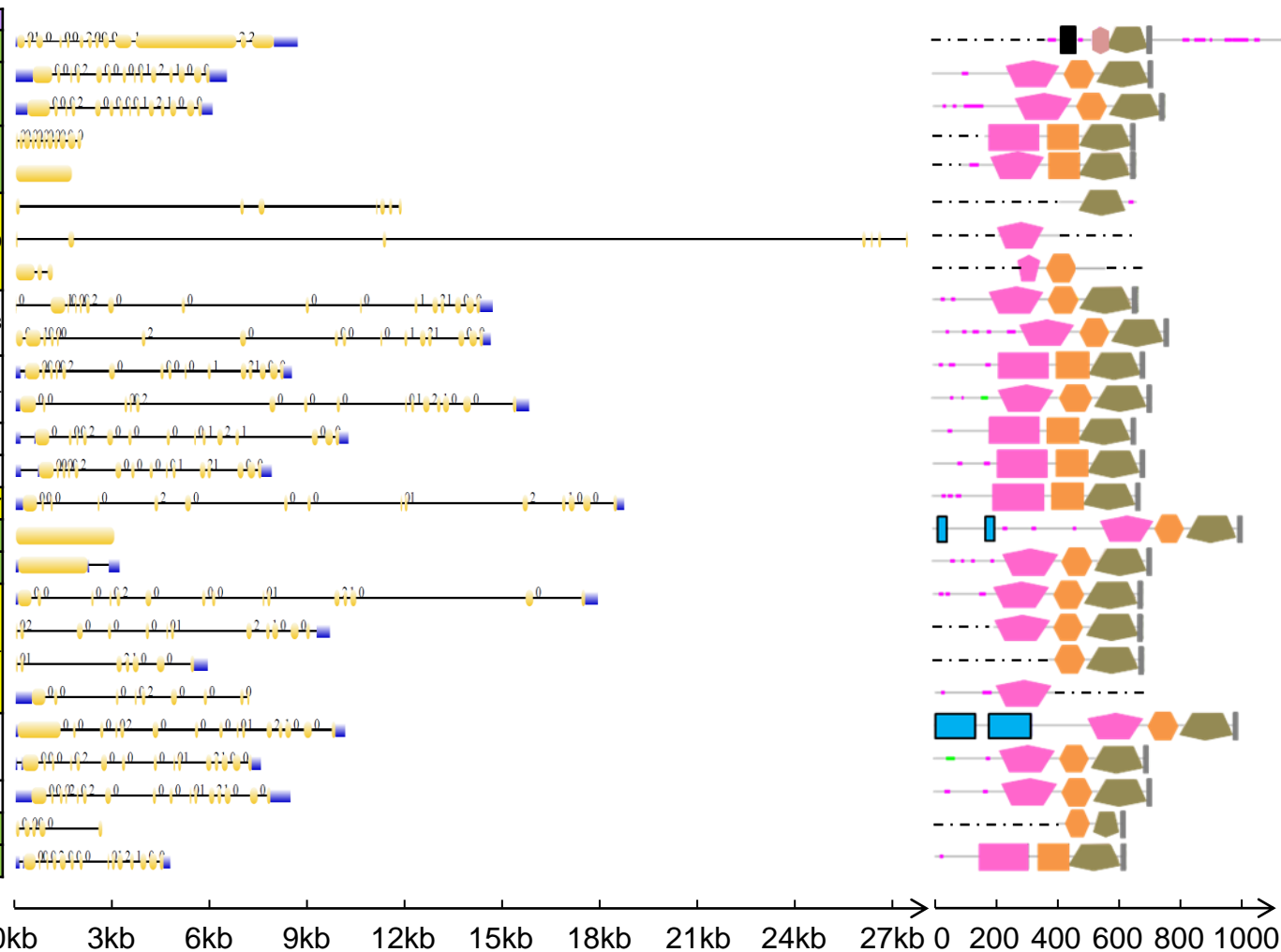
AA

a

b

c

CrSUVH4-like1	8620	13	6391	2229
PpSUVH4-like1	6691	14	3197	3494
PpSUVH4-like2				
SmSUVH4-like1	2002	11	1476	526
SmSUVH4-like2				
PaSUVH4-like1				
PaSUVH4-like2	27423	7	624	26799
PaSUVH4-like3				
ZmSUVH4-like1	14687	16	2539	12148
ZmSUVH4-like2				
SbSUVH4-like1	15778	15	2664	13114
SbSUVH4-like2				
OsSUVH4-like1	10209	15	2408	7801
HvSUVH4-like1	7856	16	2543	5313
SISUVH4-like1	18697	15	2460	16237
CISUVH4-like1	3024	1	3024	0
PvSUVH4-like1	3181	2	2557	624
PtSUVH4-like1				
PtSUVH4-like2				
PtSUVH4-like3	17875	15	2501	15374
PtSUVH4-like4				
GrSUVH4-like1	10595	15	3315	7280
GrSUVH4-like2				
TcSUVH4-like1	8431	16	3212	5219
CpSUVH4-like1	2651	5	669	1982
AtSUVH4-like1	4742	15	2212	2530

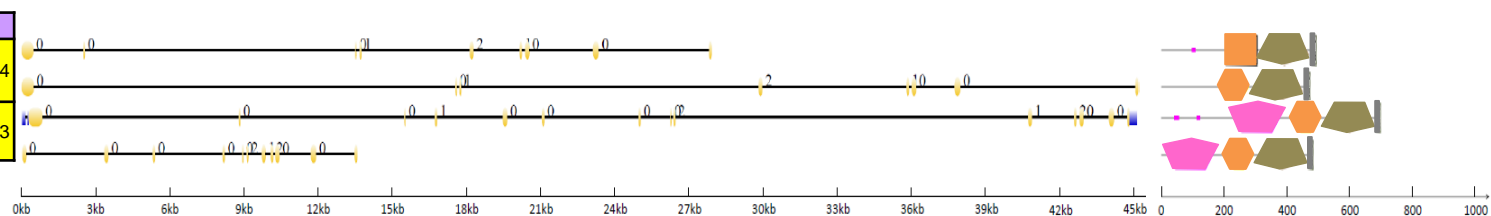


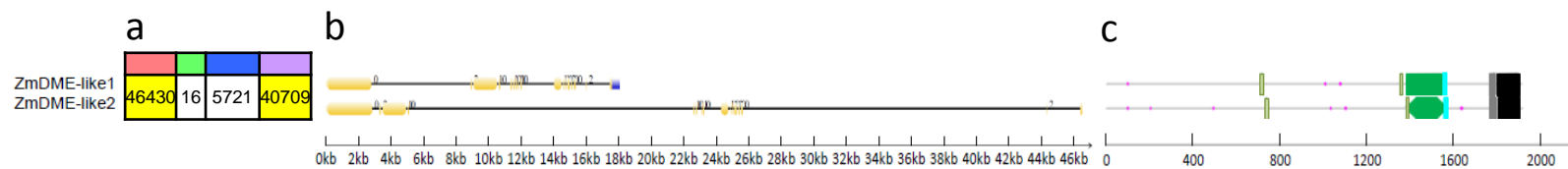
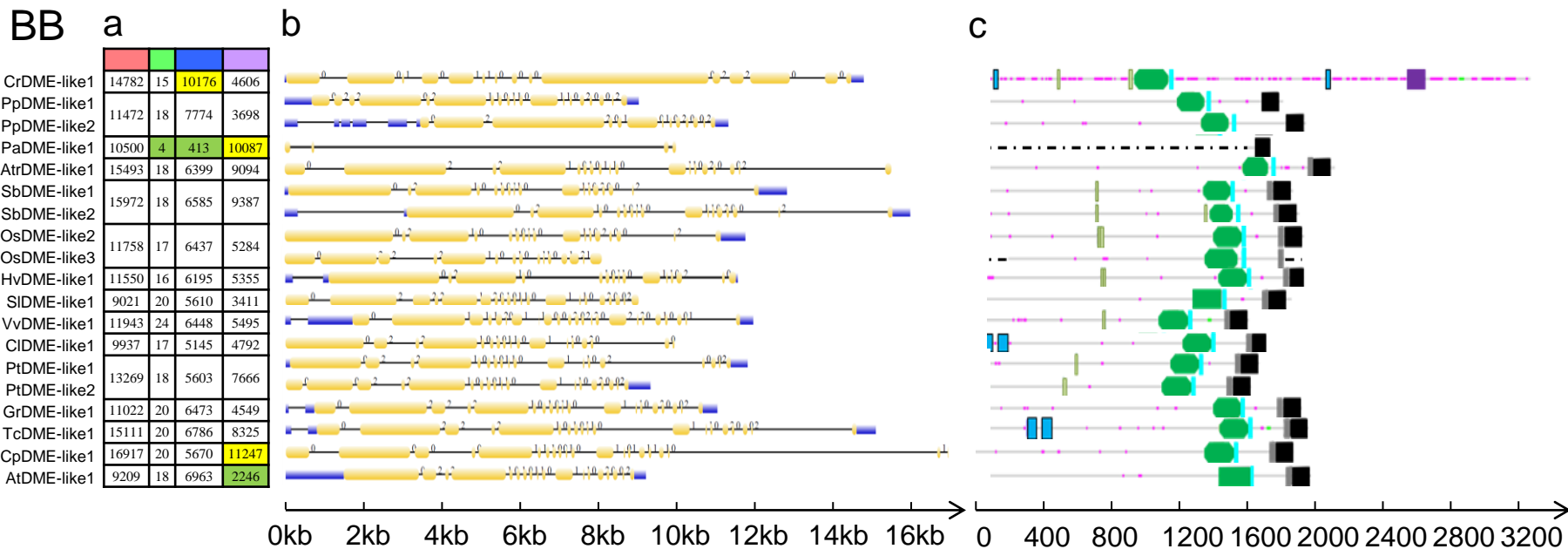
a

b

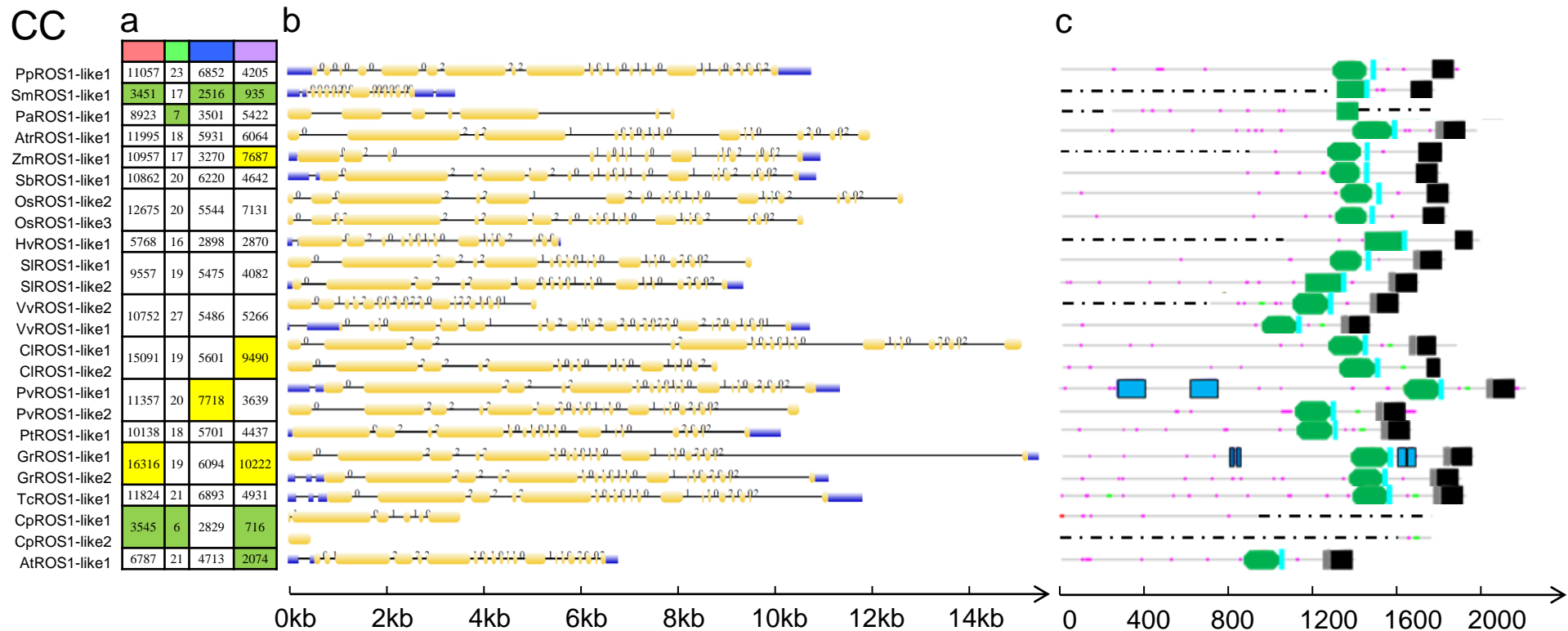
c

AtrSUVH4-like1	45195	8	1431	43764
AtrSUVH4-like2				
VvSUVH4-like1	45152	15	2549	42603
VvSUVH4-like2				





- SMART **AT_hook**
- SMART **ENDO3c**
- BLAST **ENDO3c**
- Pfam **Perm-CXXC**
- Pfam **RRM_DME**
- SMART **FES**
- SMART **DnaJ**
- Prospero **RPT1**



- SMART AT_hook
- SMART ENDO3c
- BLAST ENDO3c
- Pfam Perm-CXXC
- Pfam RRM_DME
- SMART FES
- Prospero RPT1
- Prospero RPT2

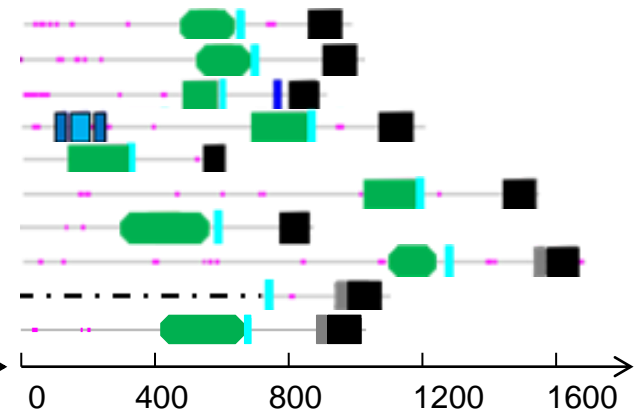
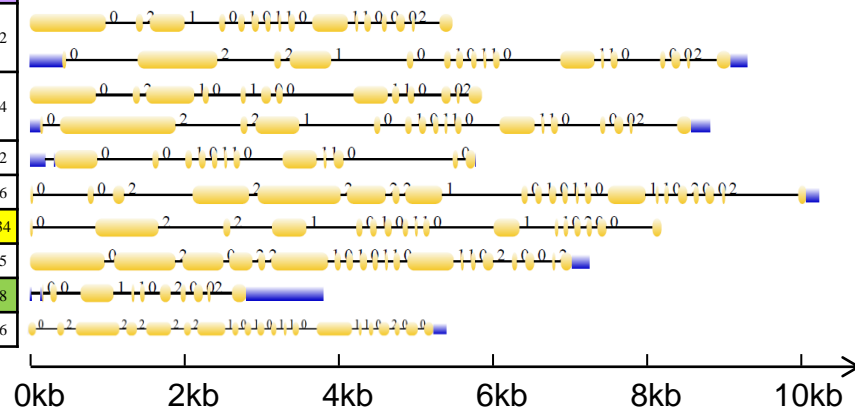
DD

a

b

c

SbDML3-like3	9303	17	3761	5542
SbDML3-like2				
OsDML3-like1	8806	17	3992	4814
OsDML3-like1				
HvDML3-like2	5776	13	1994	3782
SIDML3-like2	10224	22	4778	5446
PvDML3-like1	8180	17	2646	35534
GrDML3-like2	7861	19	5286	2575
TcDML3-like2	3795	11	2197	1598
AtDML3-like1	5424	20	3308	2116



- SMART AT_hook
- SMART ENDO3c
- BLAST ENDO3c
- Pfam Perm-CXXC
- Pfam RRM_DME
- SMART FES
- Prospero RPT1
- Prospero RPT2