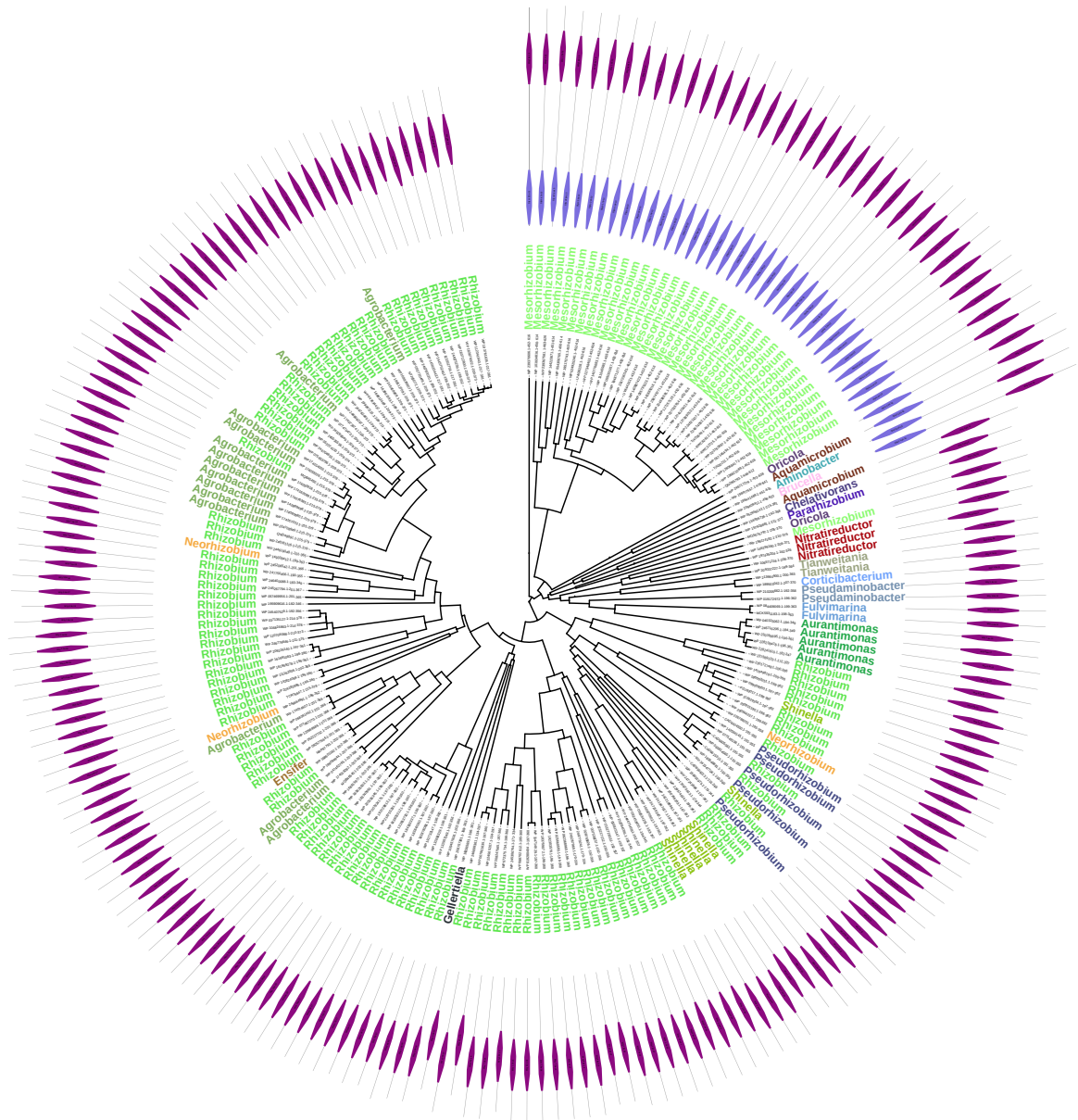
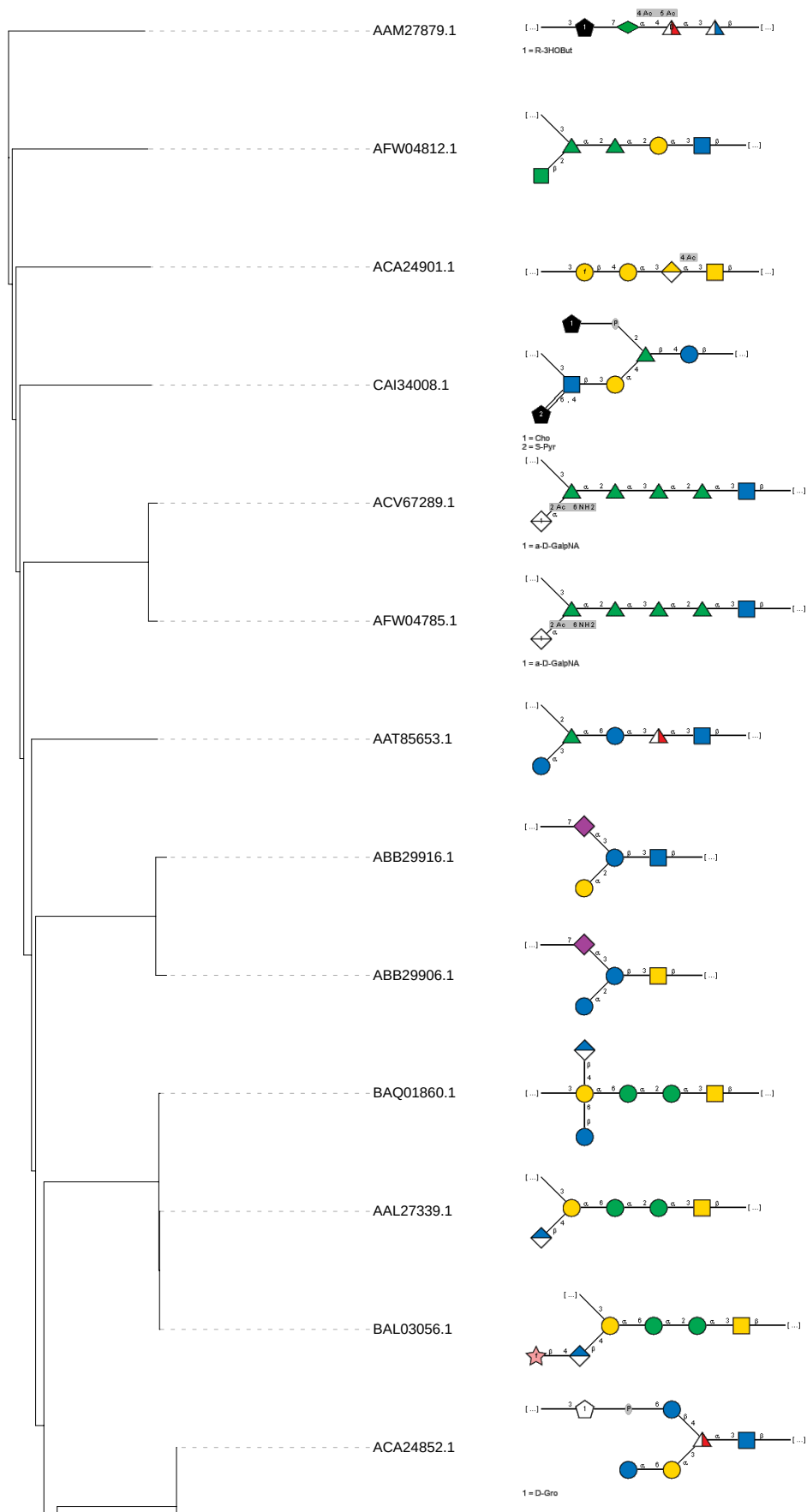


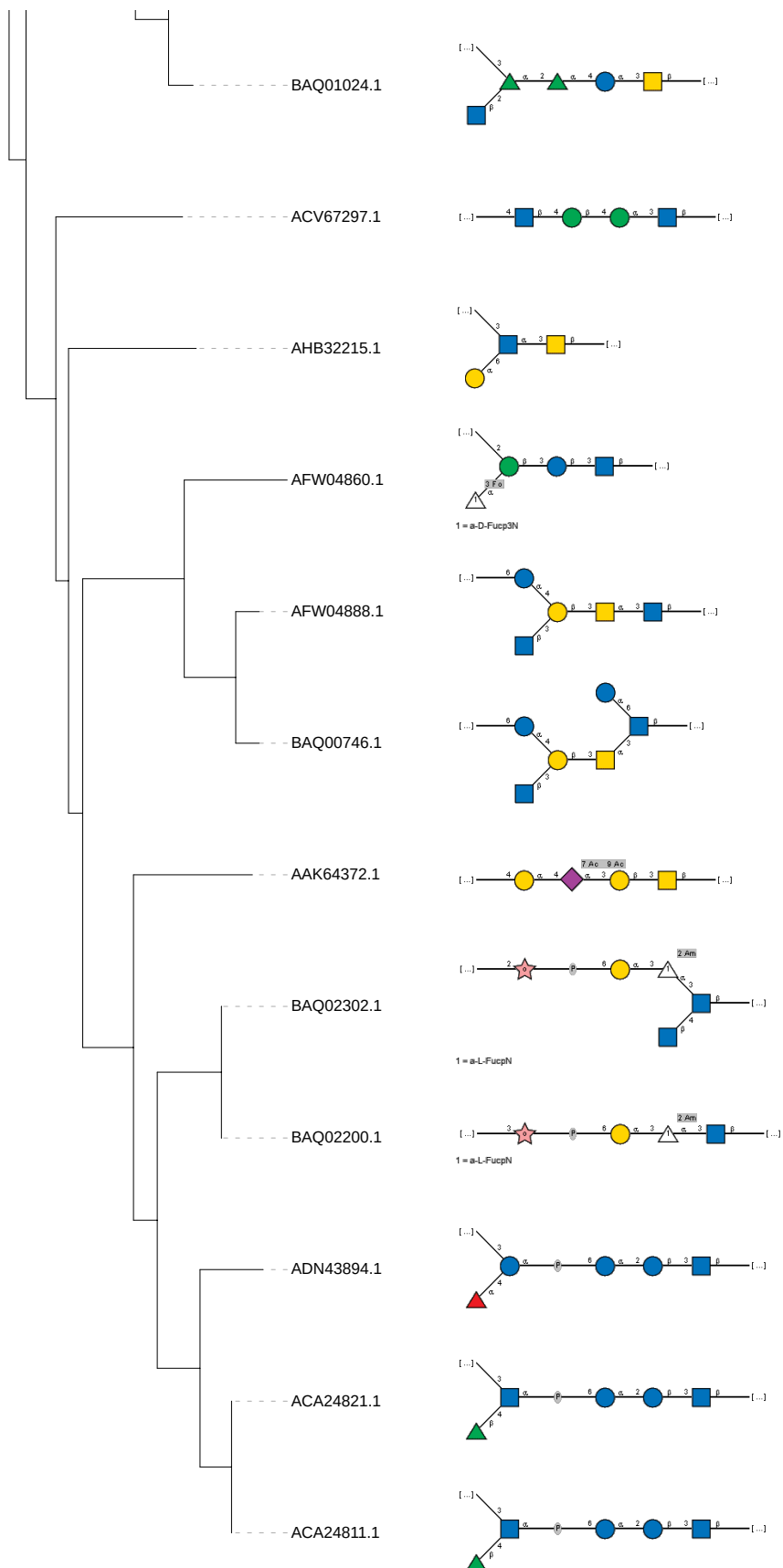
Supplementary Fig. 1. Aclust tree of representative O-Lig sequences. The four subfamilies are shown in red, green, turquoise, and yellow. Seed sequences are marked with a red bar.



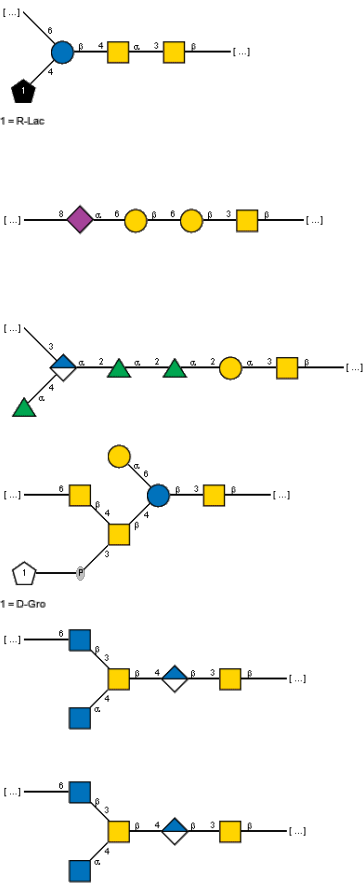
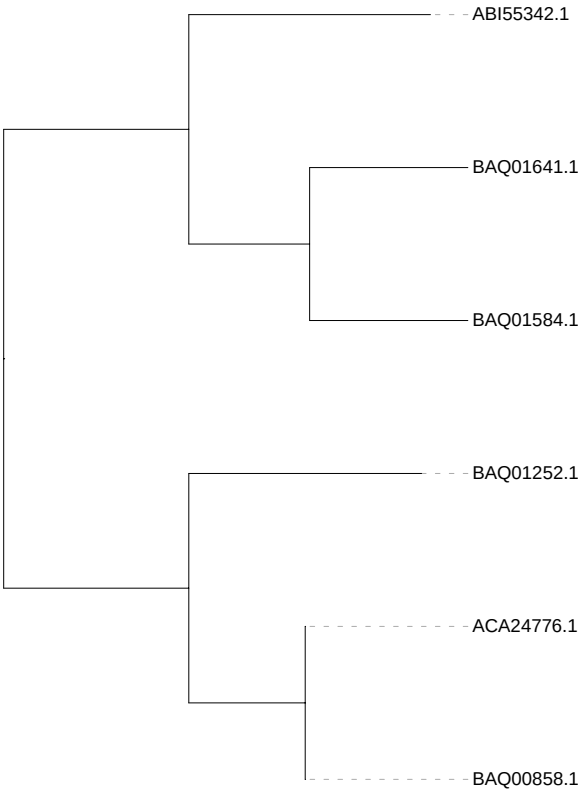
Supplementary Fig. 2. 210 representative sequences of the GTxx3 family including the taxonomic origin of the sequences and the domain modularity within the family, visualized using iTOL. The clustering is based on the pairwise BLAST similarity (coverage multiplied by identity) using the catalytic domain determined using pfam family (PF04932, Wzy_C). The domain modularity reveals members having an N-terminal GT25 domain (blue) in addition to the WadA domain (purple). Members with a GT25 domain are separated from those with only a single domain, suggestive of co-evolution of the two domains.

GTxx4:

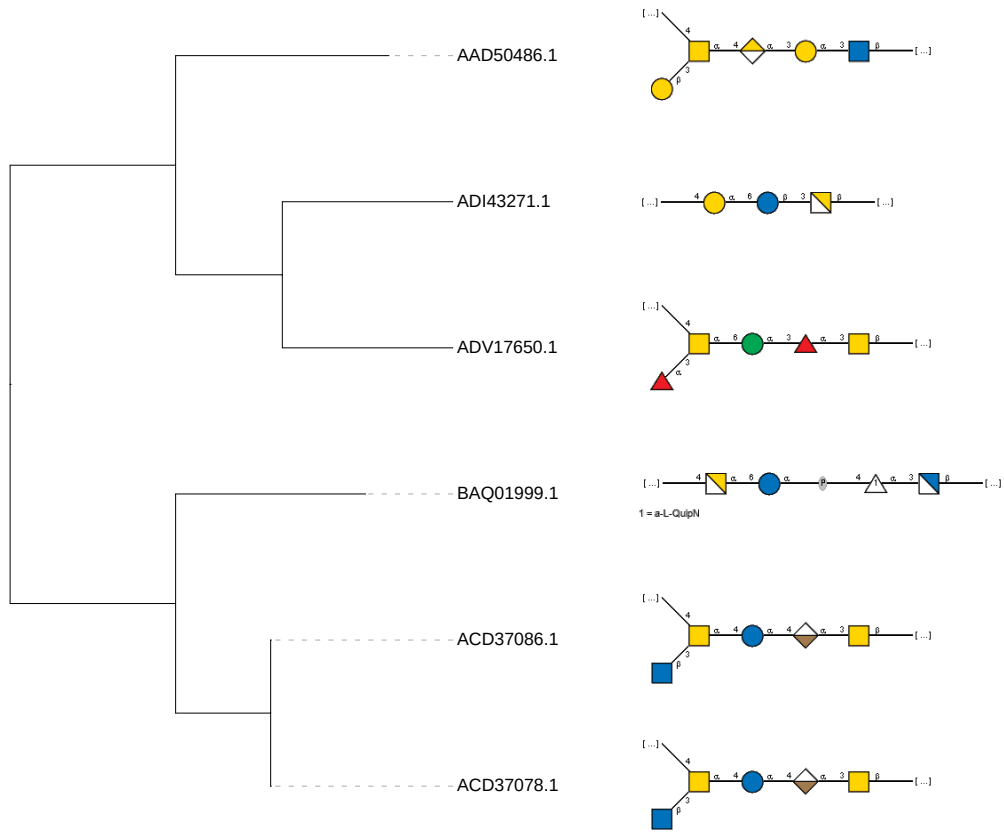




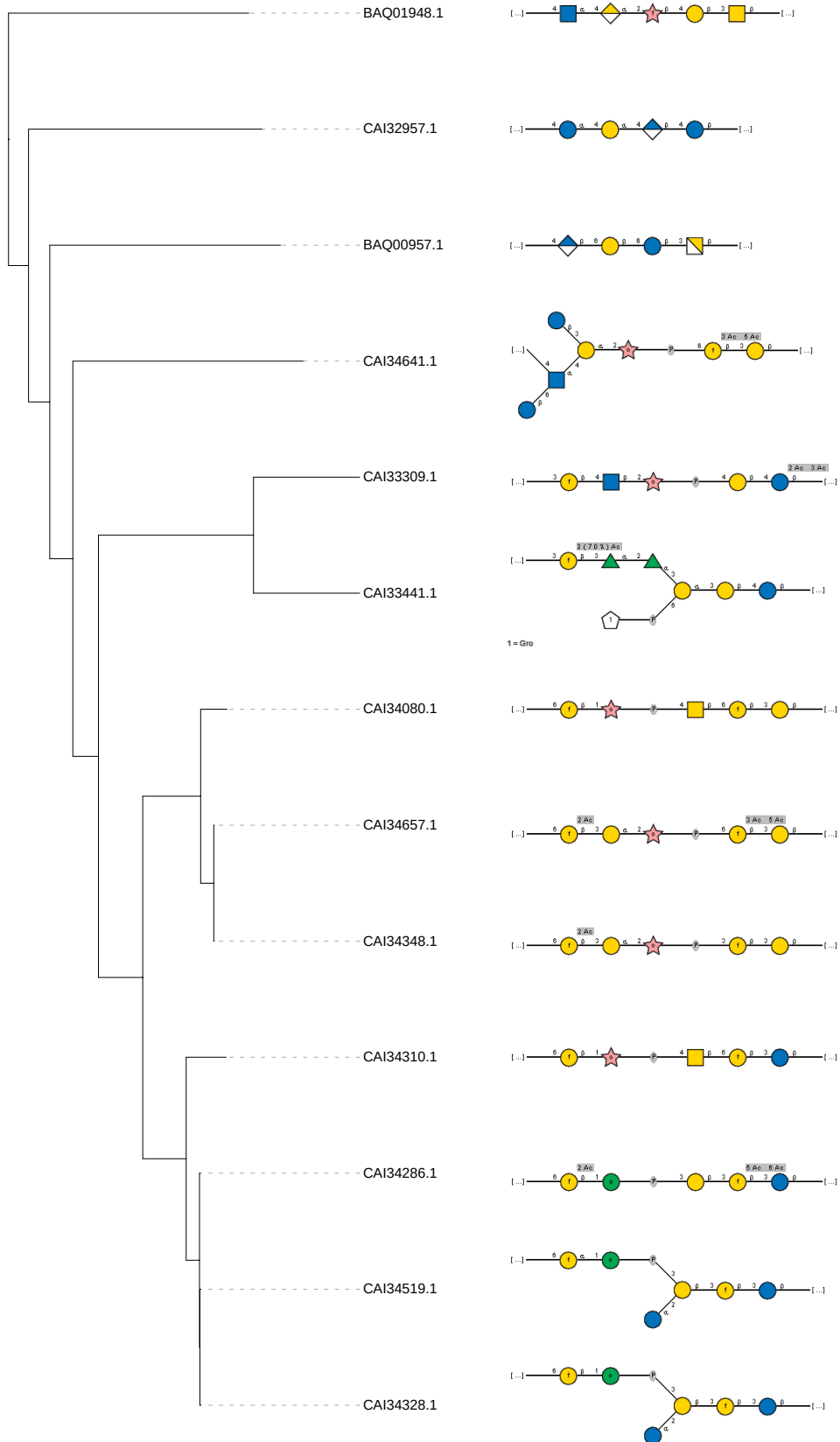
GTxx5:



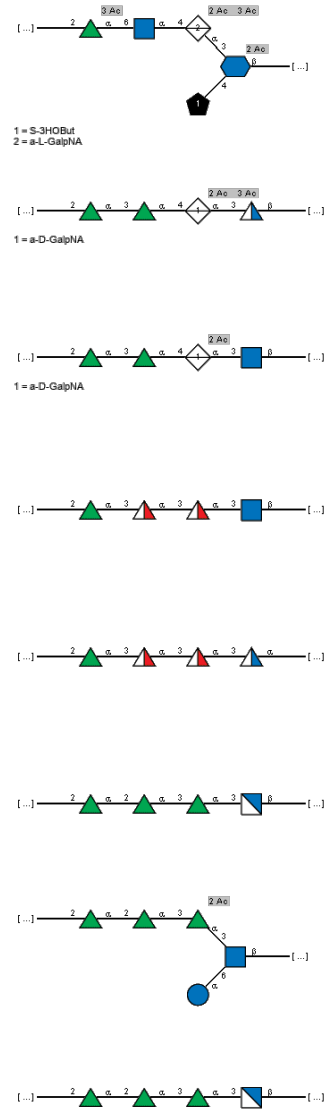
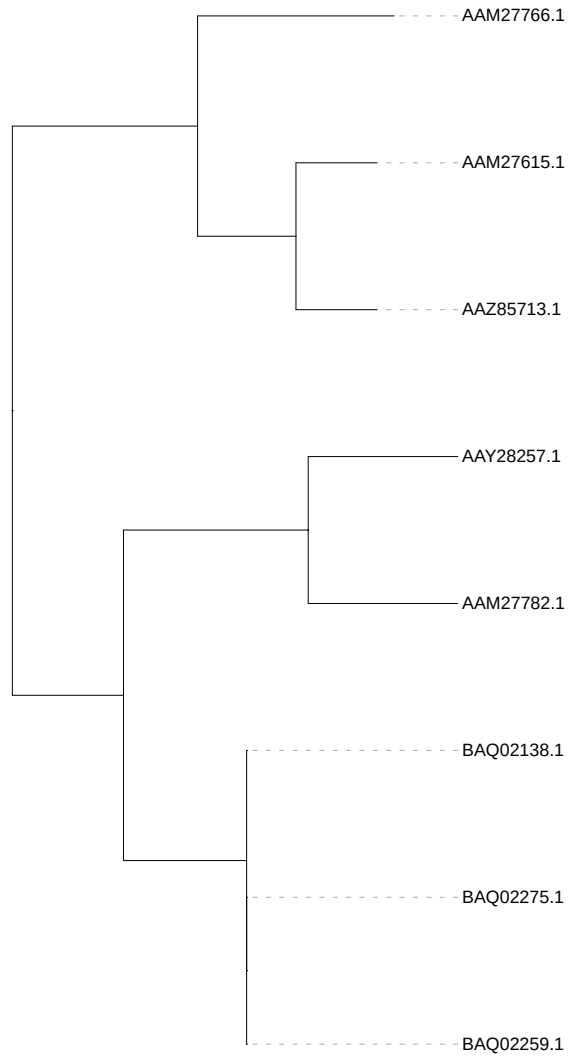
GTxx6:



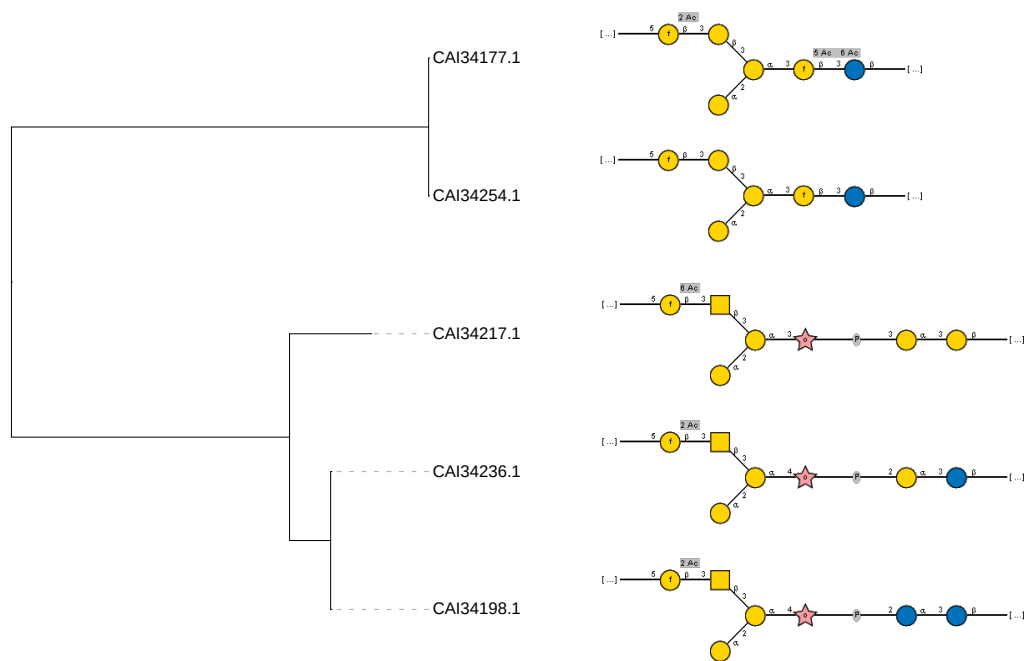
GTxx7:



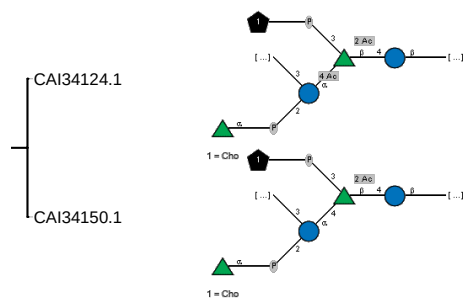
GTxx8:



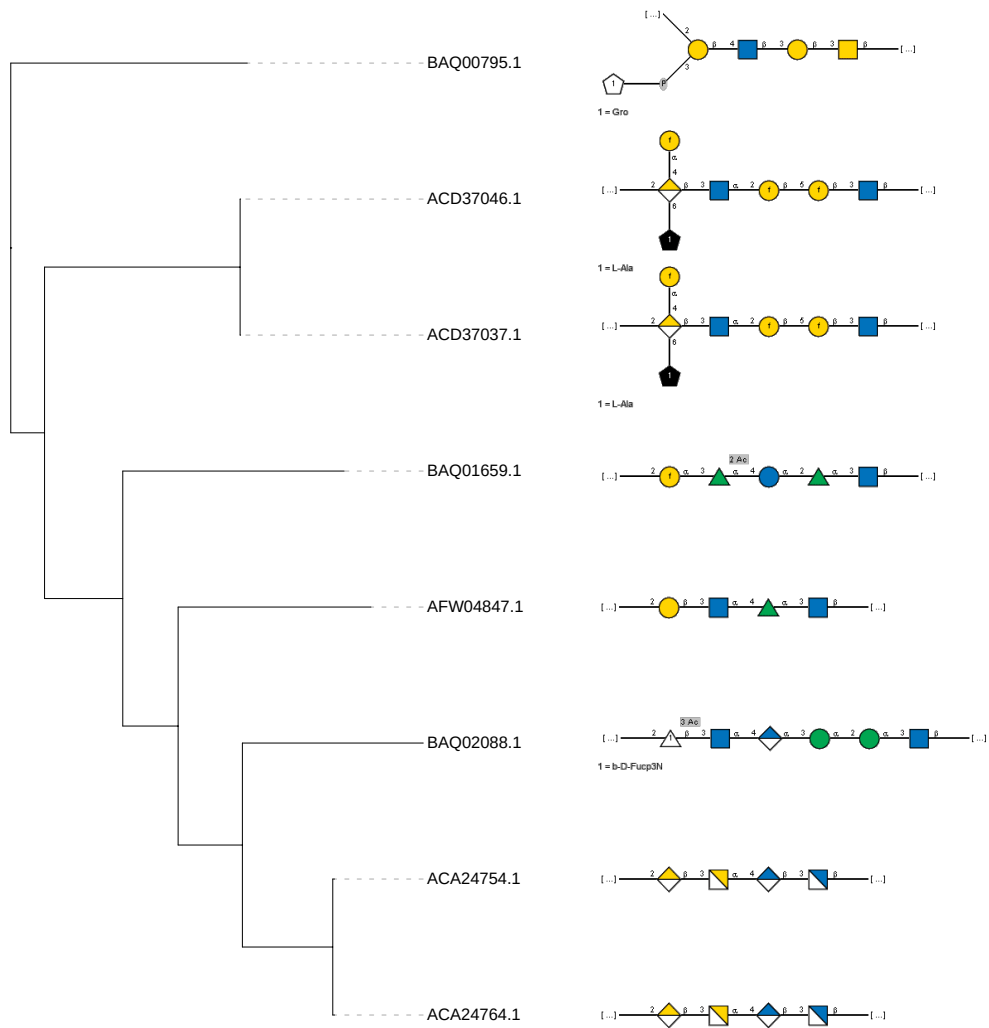
GTxx9:



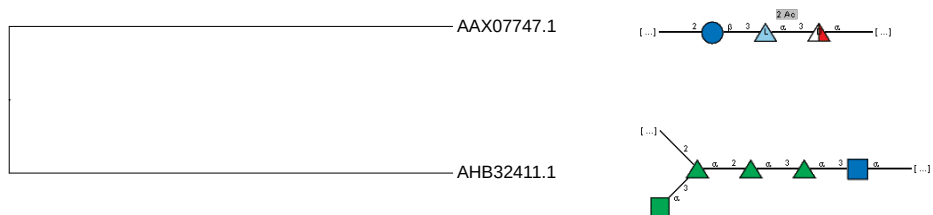
GTx10:



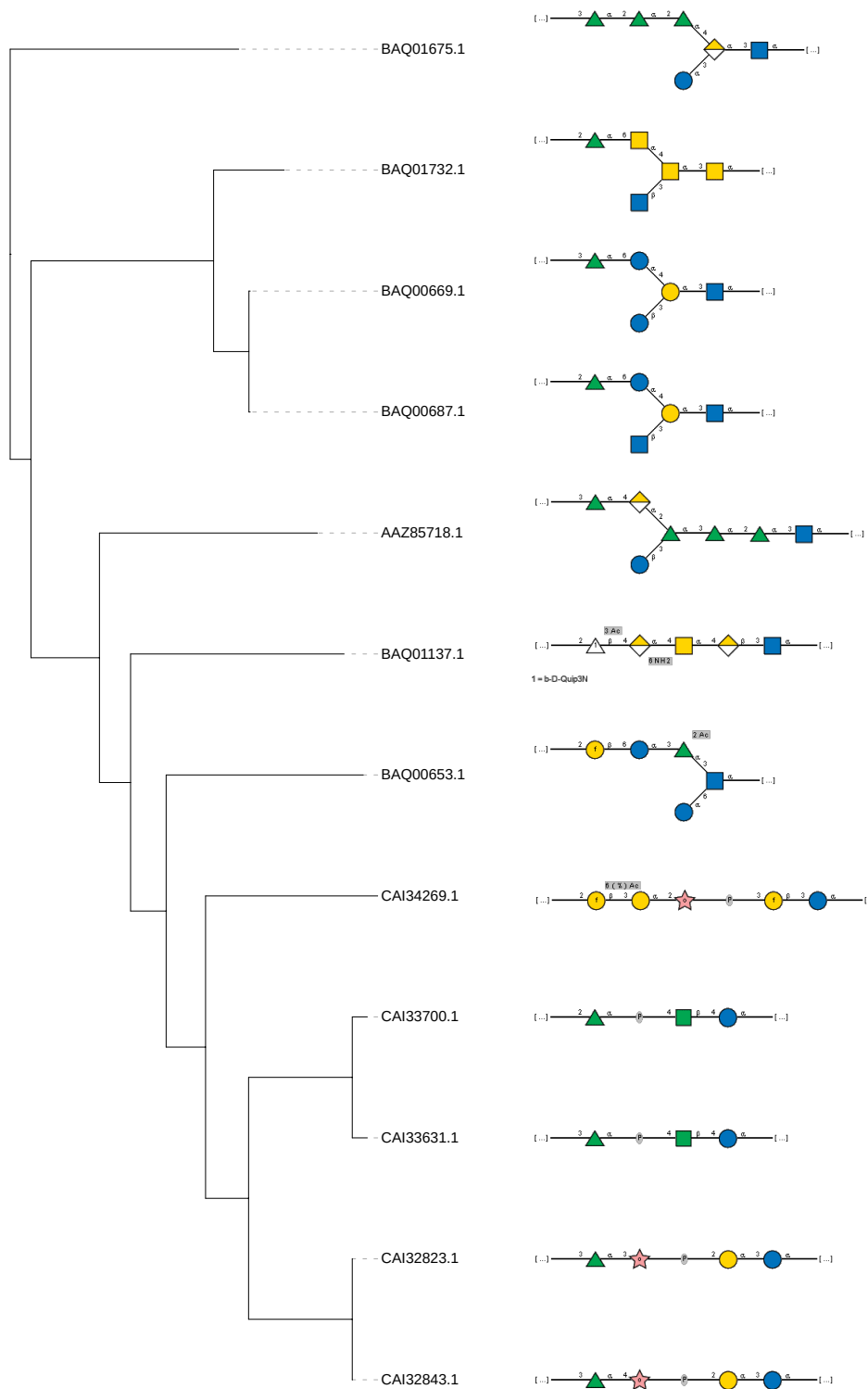
GTx11:



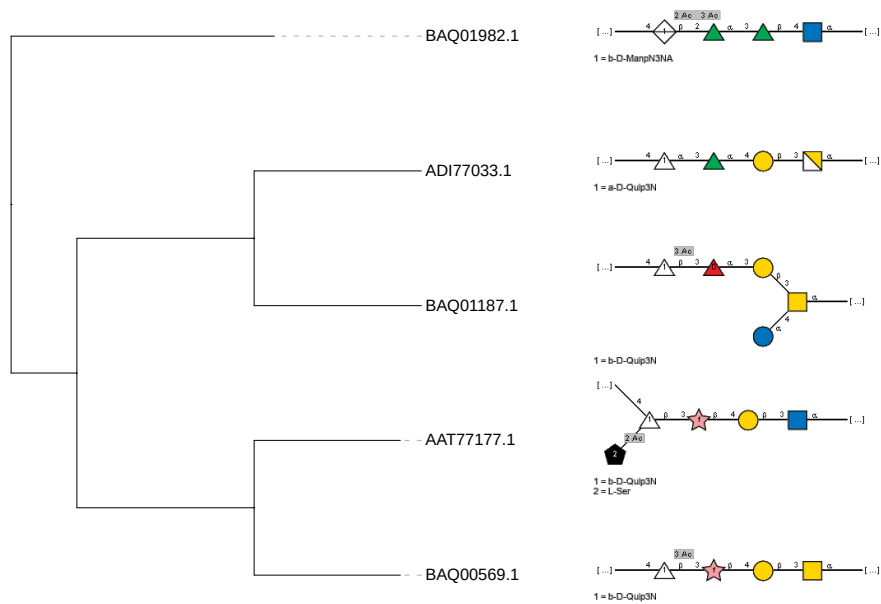
GTx12:



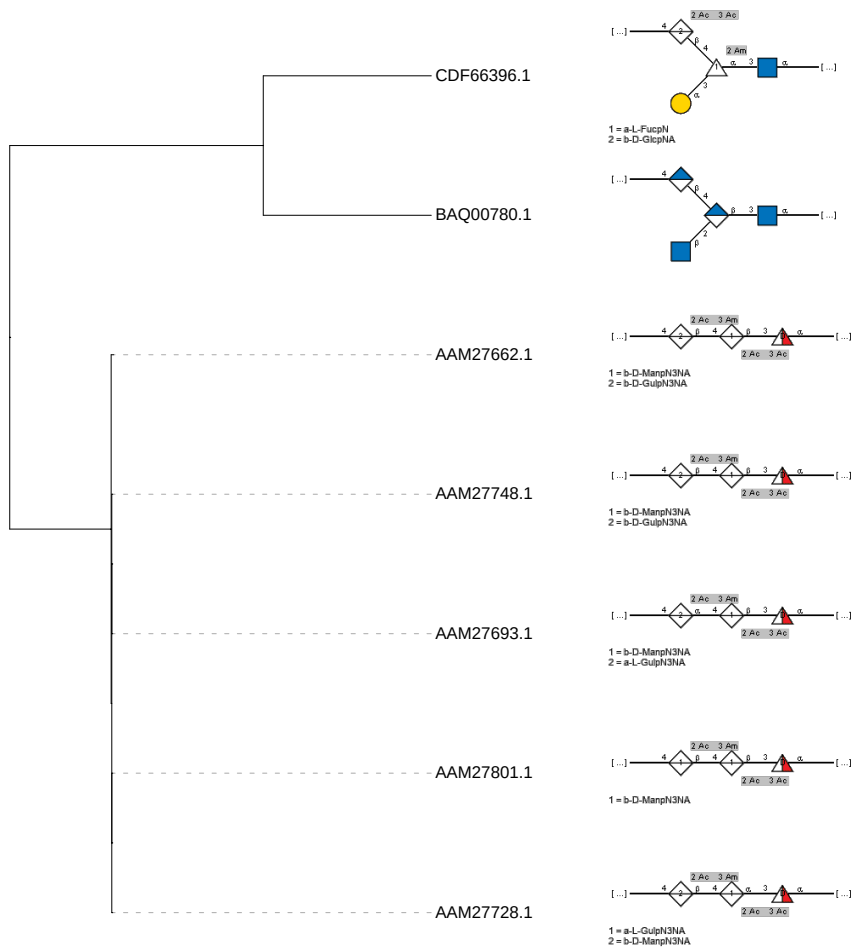
GTx13:



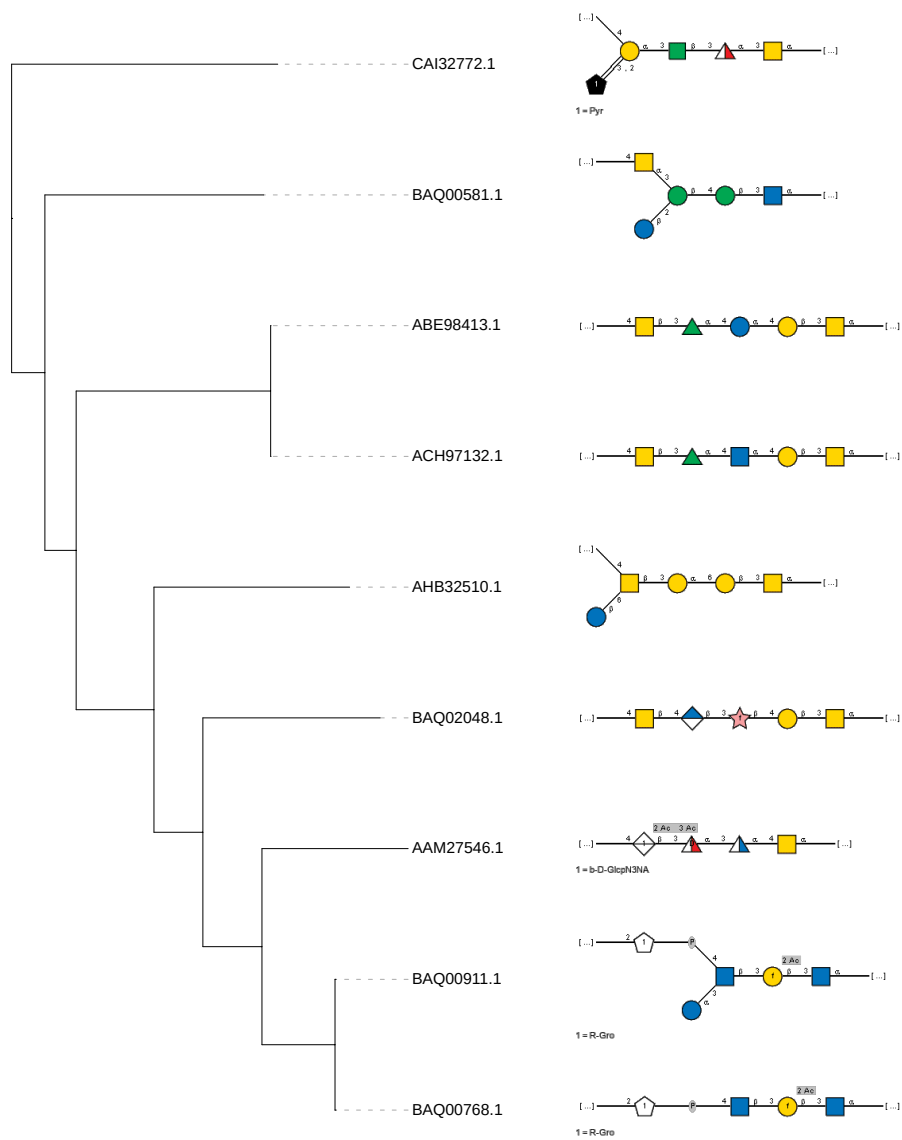
GTx14:



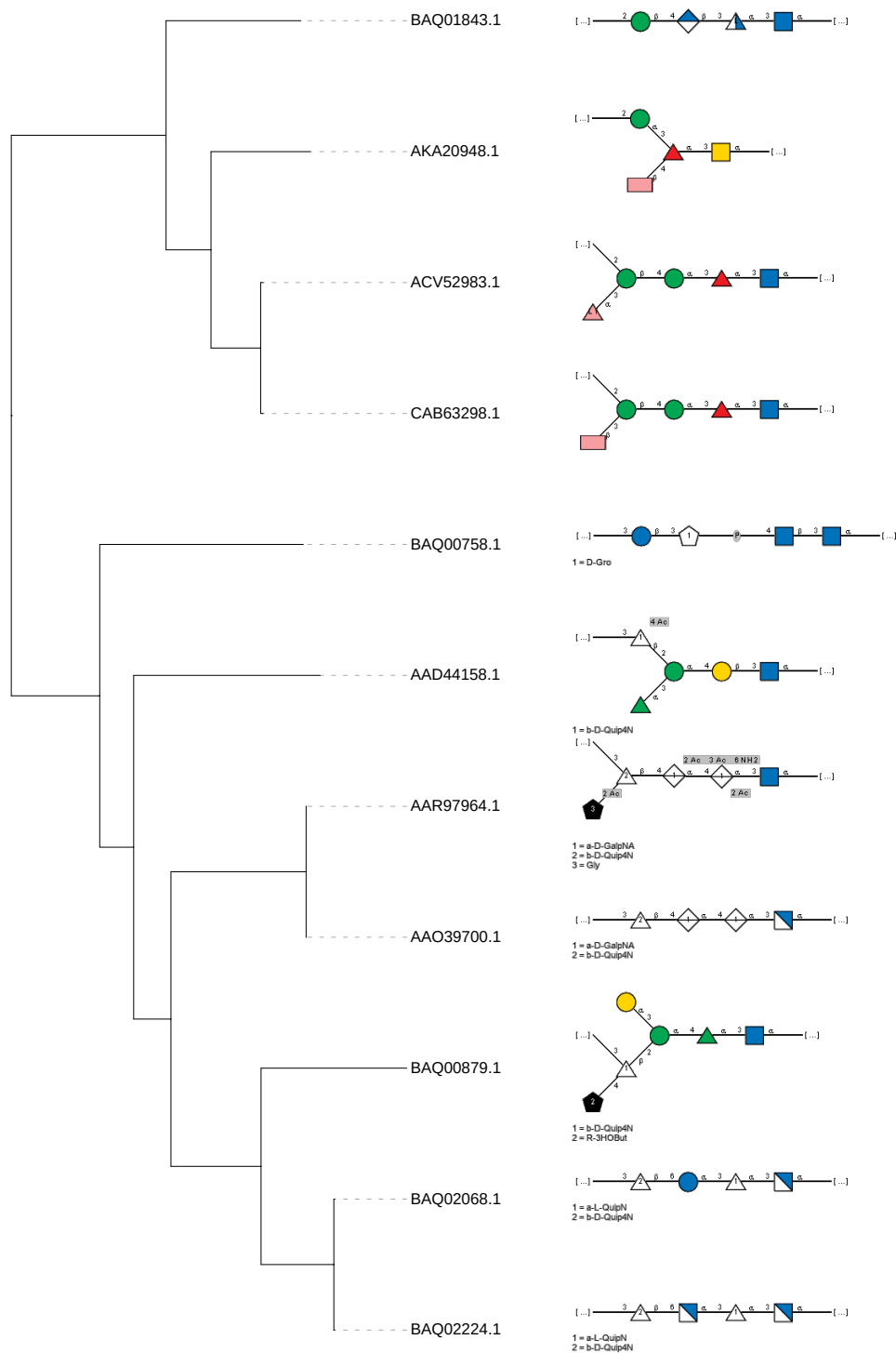
GTx15:



GTx16:



GTx17:



Supplementary Fig. 3. Phylogenetic trees of the BP-Pols in each family with structures of the corresponding sugar repeat units in SNFG format visualized using iTOL. The tree for GTxx4 is split in three pages due to its size.

Species	Accession number
Salmonella enterica	AAO71288.1
Salmonella enterica	AAV79366.1
Salmonella enterica	ACF62503.1
Salmonella enterica	ACF69468.1
Salmonella enterica	ACF92659.1
Salmonella enterica	CAR61594.1
Salmonella enterica	ACH77456.1
Salmonella enterica	CAR39498.1
Salmonella enterica	AAL22572.1
Vibrio cholerae	AAL76923.1
Taylorella equigenitalis	ADU91200.1
Haemophilus parainfluenzae	EGC72795.1
Aeromonas salmonicida	WP_005318160.1
Vibrio cholerae	AAL77359.1
Mycetohabitans rhizoxinica	CBW75858.1
Pectobacterium atrosepticum	CAG73082.1
Escherichia coli	AAB18599.1
Erwinia amylovora	CBA19033.1
Xenorhabdus bovienii	WP_012990589.1
Proteus mirabilis	CAR46213.1
Providencia rettgeri	EFE51464.1
Pseudomonas aeruginosa	AAG08384.1
Klebsiella pneumoniae	BAH65745.1
Vibrio cholerae	AAL77364.1
Leptospira borgpetersenii	WP_011670128.1
Escherichia coli	AAC69661.1
Escherichia coli	AAA24524.1
Salmonella enterica	AAA27206.1
Salmonella enterica	AAS22256.1
Salmonella enterica	NP_462613.1
Salmonella enterica	AAS22257.1
Escherichia coli	CAR10296.1
Escherichia coli	BAI33254.1
Escherichia coli	AAC69671.1
Escherichia coli	AAC69682.1
Cupriavidus metallidurans	WP_011517284.1
Escherichia coli	AAC69648.1

Supplementary Table 1. O-Lig seeds. List of seed sequences used for creation of the O-Lig family.

Species	Serotype	Accession number	CAZy family
Acinetobacter baumannii	O1	AHB32215.1	GTxx4
Acinetobacter baumannii	O2	AHB32538.1	
Acinetobacter baumannii	O3	AHB32563.2	GTx11
Acinetobacter baumannii	O4	AHB32666.1	
Acinetobacter baumannii	O5	AHB32242.2	
Acinetobacter baumannii	O6	AHB32267.1	
Acinetobacter baumannii	O7	AHB32888.2	GTxx4
Acinetobacter baumannii	O8	AHB32311.1	
Acinetobacter baumannii	O10	AHB32411.1	GTx12
Acinetobacter baumannii	O11	AHB32510.1	GTx16
Acinetobacter baumannii	O12	AHB32774.1	
Acinetobacter baumannii	O13	AHB32386.1	
Acinetobacter baumannii	O14	AHB32687.1	GTxx5
Acinetobacter baumannii	O15	AHB32490.1	GTx16
Acinetobacter baumannii	O17	AHB32462.1	GTxx4
Acinetobacter baumannii	O18	AHB32334.1	GTxx4
Acinetobacter baumannii	O19	AHB32832.1	
Acinetobacter baumannii	O20	AHB32614.2	
Acinetobacter baumannii	O21	AHB32283.1	GTxx4
Acinetobacter baumannii	O22	AHB32438.2	
Acinetobacter baumannii	O23	AHB32637.1	GTxx4
Acinetobacter baumannii	O24	AHB32586.1	
Acinetobacter baumannii	O25	AHB32861.1	GTxx4
Acinetobacter baumannii	O26	AHB32799.1	GTxx4
Acinetobacter baumannii	O27	AHB32357.1	
Streptococcus pneumoniae	1	CAI32705.1	
Streptococcus pneumoniae	2	CAI32727.1	
Streptococcus pneumoniae	4	CAI32772.1	GTx16
Streptococcus pneumoniae	5	CAI32797.1	
Streptococcus pneumoniae	6A	CAI32823.1	GTx13
Streptococcus pneumoniae	6B	CAI32843.1	GTx13
Streptococcus pneumoniae	7A	CAI32867.1	
Streptococcus pneumoniae	7B	CAI32889.1	
Streptococcus pneumoniae	7C	CAI32910.1	
Streptococcus pneumoniae	7F	CAI32935.1	
Streptococcus pneumoniae	8	CAI32957.1	GTxx7
Streptococcus pneumoniae	9A	CAI32973.1	
Streptococcus pneumoniae	9L	CAI32993.1	
Streptococcus pneumoniae	9N	CAI33011.1	

Streptococcus pneumoniae	9V	CAI33029.1	
Streptococcus pneumoniae	10F	CAI33105.1	
Streptococcus pneumoniae	10A	CAI33048.1	
Streptococcus pneumoniae	10B	CAI34733.1	
Streptococcus pneumoniae	10C	CAI33084.1	
Streptococcus pneumoniae	11F	CAI33207.1	
Streptococcus pneumoniae	11A	CAI33128.1	
Streptococcus pneumoniae	11B	CAI33149.1	
Streptococcus pneumoniae	11C	CAI33169.1	
Streptococcus pneumoniae	11D	CAI33188.1	
Streptococcus pneumoniae	12F	CAI33278.1	
Streptococcus pneumoniae	12A	CAI33226.1	
Streptococcus pneumoniae	12B	CAI33252.1	
Streptococcus pneumoniae	13	CAI33309.1	GTxx7
Streptococcus pneumoniae	14	CAI33324.1	
Streptococcus pneumoniae	15F	CAI33412.1	
Streptococcus pneumoniae	15A	CAI33343.1	
Streptococcus pneumoniae	15B	CAI33366.1	
Streptococcus pneumoniae	15C	CAI33389.1	
Streptococcus pneumoniae	16F	CAI33466.1	
Streptococcus pneumoniae	16A	CAI33441.1	GTxx7
Streptococcus pneumoniae	17F	CAI33515.1	
Streptococcus pneumoniae	17A	CAI33491.1	
Streptococcus pneumoniae	18F	CAI33610.1	
Streptococcus pneumoniae	18A	CAI33537.1	
Streptococcus pneumoniae	18B	CAI33561.1	
Streptococcus pneumoniae	18C	CAI33585.1	
Streptococcus pneumoniae	19F	CAI33700.1	GTx13
Streptococcus pneumoniae	19A	CAI33631.1	GTx13
Streptococcus pneumoniae	19B	CAI33652.1	
Streptococcus pneumoniae	19C	CAI33675.1	
Streptococcus pneumoniae	20	CAI33718.1	GTxx4
Streptococcus pneumoniae	21	CAI33745.1	
Streptococcus pneumoniae	22F	CAI33798.1	
Streptococcus pneumoniae	22A	CAI33774.1	
Streptococcus pneumoniae	23F	CAI33862.1	
Streptococcus pneumoniae	23A	CAI33817.1	
Streptococcus pneumoniae	23B	CAI33840.1	
Streptococcus pneumoniae	24F	CAI33941.1	
Streptococcus pneumoniae	24A	CAI33890.1	
Streptococcus pneumoniae	24B	CAI33915.1	
Streptococcus pneumoniae	25F	CAI33983.1	GTx16

Streptococcus pneumoniae	25A	CAI33966.2	GTxx16
Streptococcus pneumoniae	27	CAI34008.1	GTxx4
Streptococcus pneumoniae	28F	CAI34057.2	
Streptococcus pneumoniae	28A	CAI34032.1	
Streptococcus pneumoniae	29	CAI34080.1	GTxx7
Streptococcus pneumoniae	31	CAI34099.1	
Streptococcus pneumoniae	32F	CAI34150.1	GTxx10
Streptococcus pneumoniae	32A	CAI34124.1	GTxx10
Streptococcus pneumoniae	33F	CAI34254.1	GTxx9
Streptococcus pneumoniae	33A	CAI34177.1	GTxx9
Streptococcus pneumoniae	33B	CAI34198.1	GTxx9
Streptococcus pneumoniae	33C	CAI34217.1	GTxx9
Streptococcus pneumoniae	33D	CAI34236.1	GTxx9
Streptococcus pneumoniae	34	CAI34269.1	GTxx13
Streptococcus pneumoniae	35F	CAI34348.1	GTxx7
Streptococcus pneumoniae	35A	CAI34286.1	GTxx7
Streptococcus pneumoniae	35B	CAI34310.1	GTxx7
Streptococcus pneumoniae	35C	CAI34328.1	GTxx7
Streptococcus pneumoniae	36	CAI34369.1	GTxx7
Streptococcus pneumoniae	38	CAI34407.1	GTxx16
Streptococcus pneumoniae	39	CAI34436.1	
Streptococcus pneumoniae	40	CAI34454.1	
Streptococcus pneumoniae	41F	CAI34498.1	
Streptococcus pneumoniae	41A	CAI34475.1	
Streptococcus pneumoniae	42	CAI34519.1	GTxx7
Streptococcus pneumoniae	43	CAI34544.1	GTxx7
Streptococcus pneumoniae	44	CAI34753.1	
Streptococcus pneumoniae	45	CAI34587.1	
Streptococcus pneumoniae	46	CAI34613.1	
Streptococcus pneumoniae	47F	CAI34657.1	GTxx7
Streptococcus pneumoniae	47A	CAI34641.1	GTxx7
Streptococcus pneumoniae	48	CAI34680.1	GTxx10
Yersinia pseudotuberculosis	O:1a	AAN23041.1	
Yersinia pseudotuberculosis	O:1b	CAB63298.1	GTxx17
Yersinia pseudotuberculosis	O:1c	ADI59429.1	
Yersinia pseudotuberculosis	O:2a	AAN23078.1	
Yersinia pseudotuberculosis	O:2b	ADI59445.1	
Yersinia pseudotuberculosis	O:2c	AKA20935.1	
Yersinia pseudotuberculosis	O:3	AKA20948.1	GTxx17
Yersinia pseudotuberculosis	O:4a	AKA20966.1	
Yersinia pseudotuberculosis	O:4b	AAN23057.1	
Yersinia pseudotuberculosis	O:5a	AKA20981.1	

<i>Yersinia pseudotuberculosis</i>	O:5b	AKA20999.1	
<i>Yersinia pseudotuberculosis</i>	O:6	AEP25500.1	
<i>Yersinia pseudotuberculosis</i>	O:7	AEP25477.1	
<i>Yersinia pseudotuberculosis</i>	O:8	AKL88154.1	
<i>Yersinia pseudotuberculosis</i>	O:9	CDF66396.1	GTx15
<i>Yersinia pseudotuberculosis</i>	O:10	ADX97403.1	
<i>Yersinia pseudotuberculosis</i>	O:11	ACV52983.1	GTx17
<i>Yersinia pseudotuberculosis</i>	O:12	AFV46136.1	GTxx4
<i>Yersinia pseudotuberculosis</i>	O:14	ACV53000.1	GTx17
<i>Yersinia pseudotuberculosis</i>	O:15	CAX18360.1	
<i>Escherichia coli</i>	O1	ADC54929.1	
<i>Escherichia coli</i>	O2	ADC54941.1	
<i>Escherichia coli</i>	O3	ACH97152.1	
<i>Escherichia coli</i>	O4	AAT85653.1	GTxx4
<i>Escherichia coli</i>	O5	BAQ00569.1	GTx14
<i>Escherichia coli</i>	O6	BAQ00581.1	GTx16
<i>Escherichia coli</i>	O7	AAD44158.1	GTx17
<i>Escherichia coli</i>	O10	BAQ00622.1	GTxx4
<i>Escherichia coli</i>	O11	ADV17650.1	GTxx6
<i>Escherichia coli</i>	O12	BAQ00634.1	
<i>Escherichia coli</i>	O13	BAQ02138.1	GTxx8
<i>Escherichia coli</i>	O15	AAV74543.1	
<i>Escherichia coli</i>	O16	BAQ00653.1	GTx13
<i>Escherichia coli</i>	O17	BAQ02105.1	
<i>Escherichia coli</i>	O18ab	BAQ00669.1	GTx13
<i>Escherichia coli</i>	O18ac	BAQ00687.1	GTx13
<i>Escherichia coli</i>	O19	BAQ00705.1	GTx13
<i>Escherichia coli</i>	O20	BAQ00719.1	
<i>Escherichia coli</i>	O21	ACH97162.1	
<i>Escherichia coli</i>	O22	BAQ00736.1	
<i>Escherichia coli</i>	O23	BAQ00746.1	GTxx4
<i>Escherichia coli</i>	O24	ABB29906.1	GTxx4
<i>Escherichia coli</i>	O25	ADI43263.1	
<i>Escherichia coli</i>	O26	AAN60459.1	
<i>Escherichia coli</i>	O27	ADI43271.1	GTxx6
<i>Escherichia coli</i>	O28ab	BAQ00758.1	GTx17
<i>Escherichia coli</i>	O28ac	BAQ00768.1	GTx16
<i>Escherichia coli</i>	O29	ACA24852.1	GTxx4
<i>Escherichia coli</i>	O30	BAQ00780.1	GTx15
<i>Escherichia coli</i>	O32	ACD37058.1	
<i>Escherichia coli</i>	O33	BAQ00795.1	GTx11
<i>Escherichia coli</i>	O34	BAQ00812.1	

Escherichia coli	O35	ACV67289.1	GTxx4
Escherichia coli	O36	BAQ00830.1	
Escherichia coli	O37	BAQ00846.1	
Escherichia coli	O38	BAQ00858.1	GTxx5
Escherichia coli	O39	BAQ00879.1	GTx17
Escherichia coli	O40	ACD37117.1	
Escherichia coli	O41	BAQ00893.1	
Escherichia coli	O42	BAQ00911.1	GTx16
Escherichia coli	O43	BAQ00927.1	
Escherichia coli	O44	BAQ00945.1	
Escherichia coli	O45	AAX07747.1	GTx12
Escherichia coli	O46	BAQ00957.1	GTxx7
Escherichia coli	O48	BAQ00975.1	
Escherichia coli	O49	BAQ00994.1	
Escherichia coli	O50	BAQ01012.1	
Escherichia coli	O51	BAQ01024.1	GTxx4
Escherichia coli	O53	BAQ01043.1	
Escherichia coli	O54	BAQ02116.1	GTxx4
Escherichia coli	O55	AAL67557.1	
Escherichia coli	O56	ABB29916.1	GTxx4
Escherichia coli	O58	ACA24882.1	
Escherichia coli	O59	AAV74376.1	
Escherichia coli	O61	ADJ19217.1	
Escherichia coli	O63	BAQ01097.1	
Escherichia coli	O64	BAQ01114.1	
Escherichia coli	O65	BAQ01137.1	GTx13
Escherichia coli	O66	AAZ20761.1	
Escherichia coli	O68	BAQ01155.1	
Escherichia coli	O69	BAQ01169.1	
Escherichia coli	O70	BAQ01187.1	GTx14
Escherichia coli	O71	ADI77033.1	GTx14
Escherichia coli	O73	AAY23733.1	
Escherichia coli	O74	BAQ01207.1	
Escherichia coli	O75	ADC54967.1	GTxx4
Escherichia coli	O76	BAQ01218.1	
Escherichia coli	O77	BAQ02177.1	
Escherichia coli	O78	ACV67297.1	GTxx4
Escherichia coli	O79	ACA24739.1	
Escherichia coli	O80	BAQ01238.1	
Escherichia coli	O81	BAQ01252.1	GTxx5
Escherichia coli	O82	BAQ01266.1	
Escherichia coli	O83	BAQ01277.1	

Escherichia coli	O84	BAQ01293.1	
Escherichia coli	O85	ADC54974.1	
Escherichia coli	O86	AAO37717.1	
Escherichia coli	O87	ACA24901.1	GTxx4
Escherichia coli	O88	BAQ01317.1	
Escherichia coli	O90	BAQ01361.1	
Escherichia coli	O91	AAK60458.1	
Escherichia coli	O93	BAQ01386.1	
Escherichia coli	O96	BAQ01419.1	
Escherichia coli	O98	ABB04486.1	
Escherichia coli	O100	BAQ01456.1	
Escherichia coli	O102	BAQ01494.1	
Escherichia coli	O103	AAS73171.1	
Escherichia coli	O104	AAK64372.1	GTxx4
Escherichia coli	O105	ACA24829.1	GTxx4
Escherichia coli	O106	BAQ02189.1	
Escherichia coli	O107	ACH97132.1	GTx16
Escherichia coli	O108	BAQ01516.1	
Escherichia coli	O109	ADR74237.1	
Escherichia coli	O110	BAQ01533.1	
Escherichia coli	O111	AAD46730.1	
Escherichia coli	O112ab	ACD37086.1	GTxx6
Escherichia coli	O112ac	BAQ01545.1	
Escherichia coli	O113	AAD50486.1	GTxx6
Escherichia coli	O114	AAT77177.1	GTx14
Escherichia coli	O115	ADN43838.1	
Escherichia coli	O116	BAQ01563.1	
Escherichia coli	O117	ABE98413.1	GTx16
Escherichia coli	O118	BAQ02200.1	GTxx4
Escherichia coli	O119	ADB02825.1	
Escherichia coli	O120	BAQ01584.1	GTxx5
Escherichia coli	O121	AAO39700.1	GTx17
Escherichia coli	O123	BAQ02224.1	GTx17
Escherichia coli	O124	BAQ02241.1	
Escherichia coli	O125	BAQ01598.1	
Escherichia coli	O126	ABE98419.1	
Escherichia coli	O127	BAQ01623.1	
Escherichia coli	O128	AAO37701.1	
Escherichia coli	O129	BAQ02259.1	GTxx8
Escherichia coli	O130	ACD37157.1	
Escherichia coli	O131	BAQ01641.1	GTxx5
Escherichia coli	O132	BAQ01659.1	GTx11

Escherichia coli	O133	BAQ01675.1	GTxx13
Escherichia coli	O134	BAQ01687.1	
Escherichia coli	O135	BAQ02275.1	GTxx8
Escherichia coli	O136	BAQ01702.1	
Escherichia coli	O137	BAQ02286.1	
Escherichia coli	O138	AAZ85713.1	GTxx8
Escherichia coli	O139	AAZ85718.1	GTxx13
Escherichia coli	O140	BAQ01716.1	
Escherichia coli	O141	ABI98976.1	
Escherichia coli	O142	BAQ01732.1	GTxx13
Escherichia coli	O143	ACA24764.1	GTxx11
Escherichia coli	O144	BAQ01743.1	GTxx5
Escherichia coli	O145	AAV74530.1	
Escherichia coli	O146	ABE98437.1	
Escherichia coli	O147	ABI98986.1	
Escherichia coli	O148	ABA42232.1	
Escherichia coli	O149	ABI98966.1	
Escherichia coli	O150	ACA24803.1	
Escherichia coli	O151	BAQ02302.1	GTxx4
Escherichia coli	O152	ACA24821.1	GTxx4
Escherichia coli	O153	BAQ01759.1	
Escherichia coli	O154	BAQ01780.1	
Escherichia coli	O155	AAV74550.1	
Escherichia coli	O156	BAQ01793.1	
Escherichia coli	O157	AAC32340.1	
Escherichia coli	O158	ADN43871.1	
Escherichia coli	O159	ACA24890.1	
Escherichia coli	O160	BAQ01812.1	
Escherichia coli	O161	ADJ19203.1	
Escherichia coli	O163	BAQ01843.1	GTxx17
Escherichia coli	O164	BAQ02323.1	
Escherichia coli	O165	ADN43883.1	
Escherichia coli	O166	ADC54957.1	GTxx4
Escherichia coli	O167	ACD37046.1	GTxx11
Escherichia coli	O168	ACD36996.1	
Escherichia coli	O169	BAQ01860.1	GTxx4
Escherichia coli	O170	BAQ01878.1	
Escherichia coli	O171	BAQ01894.1	
Escherichia coli	O172	AAT28922.1	
Escherichia coli	O173	ADN43894.1	GTxx4
Escherichia coli	O174	BAQ01907.1	
Escherichia coli	O175	BAQ01917.1	

Escherichia coli	O176	BAQ01935.1	
Escherichia coli	O177	AAY28257.1	GTxx8
Escherichia coli	O178	BAQ01948.1	GTxx7
Escherichia coli	O179	BAQ01960.1	
Escherichia coli	O180	BAQ01982.1	GTx14
Escherichia coli	O181	BAQ01999.1	GTxx6
Escherichia coli	O182	BAQ02015.1	
Escherichia coli	O183	BAL03056.1	GTxx4
Escherichia coli	O184	BAQ02031.1	
Escherichia coli	O185	BAQ02048.1	GTx16
Escherichia coli	O186	BAQ02068.1	GTx17
Escherichia coli	O187	BAQ02088.1	GTx11
Shigella boydii	2	ACD37126.1	
Shigella boydii	3	ACD37037.1	GTx11
Shigella boydii	4	ABB65530.1	
Shigella boydii	5	AAL27327.1	
Shigella boydii	6	AAL27339.1	GTxx4
Shigella boydii	7	ACD37072.1	
Shigella boydii	8	ACA24754.1	GTx11
Shigella boydii	9	AAL27351.1	
Shigella boydii	11	AAS98031.1	GTxx4
Shigella boydii	12	ACD37026.1	
Shigella boydii	13	AAR24270.1	
Shigella boydii	14	ACD37051.1	
Shigella boydii	15	ACD37078.1	GTxx6
Shigella boydii	16	ABD19779.1	
Shigella boydii	17	ABI55342.1	GTxx5
Shigella flexneri	6	ABU80601.1	
Shigella dysenteriae	2	ACD37006.1	
Shigella dysenteriae	3	ACD37105.1	
Shigella dysenteriae	4	ACD36984.1	
Shigella dysenteriae	5	ACA24868.1	
Shigella dysenteriae	7	AAR97964.1	GTx17
Shigella dysenteriae	8	ACA24776.1	GTxx5
Shigella dysenteriae	9	ACD37111.1	
Shigella dysenteriae	10	ACA24912.1	
Shigella dysenteriae	11	ACA24840.1	GTxx4
Shigella dysenteriae	12	ACA24811.1	GTxx4
Shigella dysenteriae	13	ACA24792.1	
Pseudomonas aeruginosa	O1	AAM27546.1	GTx16
Pseudomonas aeruginosa	O2	AAM27728.1	GTx15
Pseudomonas aeruginosa	O3	AAM27766.1	GTxx8

<i>Pseudomonas aeruginosa</i>	O4	AAM27782.1	GTxx8
<i>Pseudomonas aeruginosa</i>	O5	AAM27801.1	GTx15
<i>Pseudomonas aeruginosa</i>	O9	AAM27879.1	GTxx4
<i>Pseudomonas aeruginosa</i>	O10	AAM27560.1	
<i>Pseudomonas aeruginosa</i>	O11	AAM27574.1	
<i>Pseudomonas aeruginosa</i>	O12	AAM27595.1	
<i>Pseudomonas aeruginosa</i>	O13	AAM27615.1	GTxx8
<i>Pseudomonas aeruginosa</i>	O15	AAM27645.1	GTxx8
<i>Pseudomonas aeruginosa</i>	O16	AAM27662.1	GTx15
<i>Pseudomonas aeruginosa</i>	O18	AAM27693.1	GTx15
<i>Pseudomonas aeruginosa</i>	O19	AAM27711.1	
<i>Pseudomonas aeruginosa</i>	O20	AAM27748.1	GTx15
<i>Salmonella enterica</i>	O11	AFW04820.1	GTxx4
<i>Salmonella enterica</i>	O21	AFW04741.1	
<i>Salmonella enterica</i>	O39	AFW04696.1	
<i>Salmonella enterica</i>	O40	AFW04706.1	GTx16
<i>Salmonella enterica</i>	O42	AFW04812.1	GTxx4
<i>Salmonella enterica</i>	O43	AFW04802.1	
<i>Salmonella enterica</i>	O44	AFW04828.1	
<i>Salmonella enterica</i>	O45	AFW04716.1	
<i>Salmonella enterica</i>	O47	AFW04867.1	GTxx4
<i>Salmonella enterica</i>	O48	AFW04668.1	
<i>Salmonella enterica</i>	O51	AFW04888.1	GTxx4
<i>Salmonella enterica</i>	O52	AFW04790.1	
<i>Salmonella enterica</i>	O53	AFW04837.1	
<i>Salmonella enterica</i>	O57	AFW04883.1	GTxx4
<i>Salmonella enterica</i>	O59	AFW04847.1	GTx11
<i>Salmonella enterica</i>	O60	AFW04860.1	GTxx4
<i>Salmonella enterica</i>	O61	AFW04757.1	
<i>Salmonella enterica</i>	O62	AFW04785.1	GTxx4
<i>Salmonella enterica</i>	O63	AFW04735.1	
<i>Salmonella enterica</i>	O65	AFW04684.1	

Supplementary Table 2. BP-Pol seed. List of BP-Pol sequences that were considered in this work.