

Table 4 Gene Ontology classification of secreted proteins in different plant species

(a) Biological Process	<i>At</i> (%)	<i>Pt</i> (%)	<i>Sl</i> (%)	<i>Bd</i> (%)	<i>Osj</i> (%)	<i>Zm</i> (%)	<i>Pp</i> (%)	<i>Sm</i> (%)
GO:0008152 metabolic process	673 (16)	379 (21)	439 (22)	393 (20)	544 (20)	429 (20)	155 (23)	282 (21)
GO:0006950 response to stress	579 (14)	170 (9)	200 (10)	188 (10)	260 (9)	188 (9)	59 (9)	99 (7)
GO:0009056 catabolic process	386 (9)	182 (10)	242 (12)	200 (10)	269 (10)	216 (10)	71 (10)	137 (10)
GO:0009607 response to biotic stimulus	353 (9)	61 (3)	65 (3)	49 (3)	65 (2)	54 (3)	16 (2)	29 (2)
GO:0005975 carbohydrate metabolic process	313 (8)	156 (9)	190 (9)	183 (9)	247 (9)	165 (8)	56 (8)	97 (7)
GO:0007275 multicellular organismal development	161 (4)	64 (4)	74 (4)	78 (4)	120 (4)	93 (4)	30 (4)	69 (5)
GO:0016043 cellular component organization	150 (4)	66 (4)	65 (3)	71 (4)	121 (4)	75 (4)	19 (3)	46 (3)
GO:0019538 protein metabolic process	143 (3)	98 (5)	90 (4)	98 (5)	109 (4)	91 (4)	40 (6)	71 (5)
GO:0006629 lipid metabolic process	140 (3)	65 (4)	68 (3)	72 (4)	102 (4)	83 (4)	16 (2)	61 (4)
GO:0009628 response to abiotic stimulus	111 (3)	39 (2)	39 (2)	56 (3)	82 (3)	71 (3)	14 (2)	36 (3)
GO:0007165 signal transduction	107 (3)	29 (2)	33 (2)	28 (1)	44 (2)	30 (1)	8 (1)	16 (1)
GO:0000003 reproduction	99 (2)	52 (3)	52 (3)	68 (4)	102 (4)	68 (3)	17 (2)	44 (3)
GO:0006810 transport	89 (2)	56 (3)	48 (2)	36 (2)	65 (2)	43 (2)	10 (1)	32 (2)
GO:0009058 biosynthetic process	86 (2)	66 (4)	70 (3)	62 (3)	102 (4)	89 (4)	40 (6)	60 (4)
GO:0030154 cell differentiation	86 (2)	16 (1)	20 (1)	23 (1)	44 (2)	23 (1)	8 (1)	17 (1)
others	636 (15)	316 (17)	309 (15)	322 (17)	505 (18)	385 (18)	125 (18)	268 (20)
total	4112	1815	2004	1927	2780	2103	684	1364
(b) Molecular Function	<i>At</i> (%)	<i>Pt</i> (%)	<i>Sl</i> (%)	<i>Bd</i> (%)	<i>Osj</i> (%)	<i>Zm</i> (%)	<i>Pp</i> (%)	<i>Sm</i> (%)
GO:0016787 hydrolase activity	649 (32)	328 (23)	380 (29)	398 (29)	533 (24)	362 (28)	114 (28)	243 (29)
GO:0005488 binding	595 (29)	435 (31)	408 (31)	434 (32)	711 (33)	407 (31)	139 (34)	263 (31)
GO:0003824 catalytic activity	249 (12)	186 (13)	158 (12)	194 (14)	272 (12)	169 (13)	59 (15)	115 (14)
GO:0016740 transferase activity	135 (7)	122 (9)	107 (8)	97 (7)	191 (9)	116 (9)	27 (7)	75 (9)
GO:0000166 nucleotide binding	92 (4)	103 (7)	82 (6)	74 (5)	166 (8)	85 (6)	21 (5)	51 (6)
GO:0030234 enzyme regulator activity	61 (3)	29 (2)	53 (4)	28 (2)	42 (2)	23 (2)	2 (0)	2 (0)
GO:0005102 receptor binding	57 (3)	11 (1)	7 (1)	10 (1)	17 (1)	10 (1)	2 (0)	8 (1)
GO:0016301 kinase activity	51 (2)	72 (5)	55 (4)	45 (3)	106 (5)	49 (4)	13 (3)	40 (5)
GO:0004871 signal transducer activity	43 (2)	14 (1)	11 (1)	13 (1)	23 (1)	13 (1)	3 (1)	9 (1)
GO:0030246 carbohydrate binding	41 (2)	33 (2)	24 (2)	37 (3)	54 (2)	29 (2)	8 (2)	14 (2)
GO:0008289 lipid binding	27 (1)	19 (1)	26 (2)	18 (1)	23 (1)	14 (1)	1 (0)	7 (1)
others	47 (2)	44 (3)	22 (2)	16 (1)	43 (2)	32 (2)	15 (4)	14 (2)
total	2047	1396	1333	1364	2181	1309	404	841

Note: *At*: *Arabidopsis thaliana*; *Pt*: *Populus trichocarpa*; *Sl*: *Solanum lycopersicum*; Monocots - *Bd*: *Brachypodium distachyon*; *Osj*: *Oryza sativa* (subsp. japonica); *Zm*: *Zea mays*. Mosses - *Physcomitrella patens* (subsp. patens); *Sm*: *Selaginella moellendorffii*