

Search History:

Limited Classification Search

The Patent Analyst performed a limited classification search within the following US, IPC, CPC, ECLA, or F-Term classification areas:

CPC Class/Subclass(es): C12N 15/8216; C12N 15/8218; C12N 15/8261 (2018.08)

IPC (8) Class/Subclass(es): C12N 15/113; C12N 15/82 (2018.01)

U.S. Class/Subclass(es): 424/94.4; 800/286; 800/287

See Global Search Results.

Global Patent Literature Text Search

The Patent Analyst performed the following global text search, which was not limited by classification but may or may not have been limited by other criteria:

Questel Orbit: <https://www.orbit.com>

#	Search query	Results
1	((RUTGERS)/PA/OPA/PAH/OWR/REAS)	1967
2	((MESSING D JOACHIM)/IN/OIN/INH/INV)	13
3	((PLANTA D JOSE)/IN/OIN/INH/INV)	0
4	((MAIZE OR CORN OR (ZEA MAYS)) AND (PROTEIN? OR (AMINO ACID?) OR MET OR METHIONINE OR LYS OR LYSINE OR TRP OR TRYPTOPHAN) AND (CONTENT OR AMOUNT OR CONCENTRATION? OR LEVEL?))/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX	388270
5	((PHOSPHOADENOSINE 2W PHOSPHOSULFATE REDUCTASE?) OR PAPR OR CYSH OR (PAPS REDUCTASE?))/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX	10959
6	(ZEIN)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX	30970
7	4 AND 5 AND 6	21
8	4 AND 5	277
9	((PROMOTER?) S (LEAF))/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX	12577
10	8 AND 9	16
11	10 NOT 7	9
12	(ZEIN)/TI/AB/IW/CLMS	4745
13	((MAIZE OR CORN OR (ZEA MAYS)) AND (PROTEIN? OR (AMINO ACID?) OR MET OR METHIONINE OR LYS OR LYSINE OR TRP OR TRYPTOPHAN) AND (CONTENT OR	2366

	AMOUNT OR CONCENTRATION? OR LEVEL?) AND (KERNEL?)/TI/AB/IW/CLMS	
14	12 AND 13	70
15	(ZEIN AND (RNAI OR SIRNA))/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX	3800
16	14 AND 15	7
17	(KERNEL?)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX	385015
18	5 AND 9 AND 17	7
19	C12N-015/8261/CPC	2793
20	C12N-015/8216/CPC	1442
21	C12N-015/8218/CPC	1211
22	19 AND 20 AND 21	27
23	(19 OR 20) AND 21	368
24	23 AND 13	7
25	22 OR 24	34
26	25 NOT (18 OR 16 OR 10 OR 7 OR 2)	34
27	C12N-015/82/IPC	29542
28	C12N-015/113/IPC	18779
29	27 AND 28	1679
30	29 AND 13	31
31	30 NOT (25 OR 18 OR 16 OR 10 OR 7 OR 2)	30
32	800286/PCL	620
33	800287/PCL	1189
34	800288/PCL	1256
35	424094400/PCL	890
36	32 AND 33 AND 34	27
37	34 AND 35	1

Google Patents: <https://patents.google.com>

#	Search query	Results
1	((maize) OR (corn) OR (zea)) ((PAPR) OR ("paps reductase")) (zein)	16509
2	((maize) OR (corn) OR (zea)) ((PAPR) OR ("paps reductase")) (zein) ((RNAI) OR (siRNA) OR (shRNA)) ("leaf-specific") ((protein?) OR (amino acid?))	163

3	((maize) OR (corn) OR (zea)) (("PAPR") OR ("paps reductase") OR (phosphoadenosine)) (zein)	14
4	(cl=zein?) (kernel?) ((maize) OR (corn) OR (zea)) ((siRNA) OR (RNAi))	26
5	(phosphoadenosine) (phosphosulfate) (reductase?) ((corn) OR (zea) OR (maize)) ((pepc) OR ("leaf-specific"))	5
6	("PAPR") ((corn) OR (zea) OR (maize)) (leaf)	14

Computer Accessed Text Databases Searched

The Patent Analyst searched the following computer accessed text databases:

PubMed.gov (NCBI): <http://www.ncbi.nlm.nih.gov/pubmed>

#	Search query	Results
1	(Messing, Joachim[Author] OR Planta, Jose[Author])	101
2	(Messing, Joachim[Author] OR Planta, Jose[Author]) AND (corn OR maize OR zea) AND (zein OR PAPR)	26
3	(corn OR maize OR zea) AND (zein) AND (PAPR OR PAPS reductase OR phosphoadenosine)	2
4	(corn OR maize OR zea) AND (zein OR PAPR OR PAPS reductase OR phosphoadenosine) AND (kernel)	48

Google Scholar: <https://scholar.google.com/>

#	Search query	Results
1	zein "PAPR" OR PAPS reductase corn OR maize OR zea kernel	24
2	zein phosphoadenosine phosphosulfate reductase corn OR maize OR zea kernel	14
3	PE5 B101	24
4	PE5 zein kernel corn OR maize OR zea RNAi OR siRNA	27
5	B101 PAPR OR reductase kernel corn OR maize OR zea	3

Date search was completed: 20 November 2018

GO/JJ