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): C07K 14/195; C12N 1/06; C12N 9/1247; C12P 21/02 (2018.08)

IPC (8) Class/Subclass(es): C07K 14/195; C12N 9/12; C12P 21/00 (2018.01)

U.S. Class/Subclass(es): 435/69.1; 435/70.1; 435/91.5

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	((SYNVITROBIO)/PA/OPA/PAH/OWR/REAS)	1
2	((SUN D ZACHARY)/IN/OIN/INH/INV)	4
3	((CHIAO D ABEL)/IN/OIN/INH/INV)	1
4	((ROBERTSON D DAN+)/IN/OIN/INH/INV)	156
5	((METZGER 2D LOUIS)/IN/OIN/INH/INV)	19
6	((MANSFIELD D RICHARD)/IN/OIN/INH/INV)	96
7	((TREGO D KELLY)/IN/OIN/INH/INV)	1
8	**1 OR 2 OR 3 OR 5 OR 7**	**23**
9	((((CELL-FREE) OR (IN VITRO) OR (TX-TL)) AND EXPRESS+)/TI/AB/IW/CLMS AND (TRANSLAT+ AND TRANSCRIPT+)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX)	23755
10	(CELL? AND LYSATE?)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX	155774
11	(((ENERGY OR ATP) S (RECYCL+)) OR ("3" PGA) OR PANOX)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX	191518
12	(SULFONE? OR ECTOINE? OR GLYCOL? OR AMIDE? OR AMINE? OR (SUGAR POLYMER?) OR (SUGAR ALCOHOL?))/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX	3072469
13	9 AND 10 AND 11 AND 12	86
14	(MAGNESIUM AND POTASSIUM AND RIBONUCLE+ AND (AMINO ACIDS) AND	18700

	BUFFER?)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX	
15	13 AND 14	40
16	(RNA POLYMERASE?)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX	77661
17	**15 AND 16**	**32**
18	**15 NOT 17**	**8**
19	13 NOT 15	46
20	**19 AND 16**	**19**
21	**19 NOT 20**	**27**
22	(((RNA POLYMERASE?) S (MUTA+ OR MODIF+ OR ALTER+ OR SUBSTITUT+ OR VARIA+))/TI/AB/IW/CLMS AND (ELONGAT+)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX)	373
23	9 AND 10 AND 22	41
24	**23 NOT 13**	**38**
25	C12P-021/00/CPC	2341
26	C12P-021/02/CPC	3092
27	C12N-009/1247/CPC	209
28	C07K-014/195/CPC	1914
29	C12N-001/06/CPC	1105
30	(25 OR 26) AND 27	18
31	(25 OR 26) AND 28 AND 29	1
32	(25 OR 26) AND (28 OR 29)	126
33	32 AND 9	7
34	32 AND 22	2
35	30 OR 31 OR 33 OR 34	24
36	**35 NOT (23 OR 13)**	**18**
37	C12P-021/02/IPC	34141
38	C12P-021/00/IPC	20454
39	C12N-009/12/IPC	8421
40	C07K-014/195/IPC	6824
41	C12N-001/06/IPC	1685
42	(37 OR 38) AND 39	1377

43	(37 OR 38) AND 39 AND (40 OR 41)	62
44	43 NOT (35 OR 23 OR 13)	59
45	**44 AND (9 OR 16)**	**21**
46	**44 NOT 45**	**38**
47	435070100/PCL	1583
48	435069100/PCL	21489
49	435091500/PCL	632
50	**47 AND 48 AND 49**	**2**
51	49 AND (47 OR 48)	69
52	**51 AND 9**	**14**
53	51 AND 16	28
54	**53 NOT (52 OR 50 OR 43 OR 35 OR 23 OR 13)**	**19**

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

#	Search query	Results
1	(("in vitro") OR ("cell free")) (transcription) (translation) (lysate?) (energy recyling) (ATP) (additive?)	315
2	**((cl="in vitro") OR (cl="cell free")) (transcription) (translation) (lysate?) ((energy recyling) OR ("3-pga") OR (panox)) (ATP) ((magnesium) OR (mg2+)) (potassium) (ribonucle$) ("amino acids") (ADP)**	**31**
3	**((cl="in vitro") OR (cl="cell free")) (transcription) (translation) (lysate?) (("energy recyling") OR ("3-pga") OR (panox) OR ("atp recycling") OR ("adp recycling")) (ATP) ((magnesium) OR (mg2+)) (potassium) (ribonucle$) ("amino acids") (ADP)**	**8**
4	((cl="cell free") OR (cl="in vitro")) (cl=transcription) (cl=translation) ("rna polymerase") ((varia$) OR (muta$) OR (modif$) OR (substitut$)) (elongat$) (ribosom$) (lysate?)	195
5	**(("cell free") OR ("in vitro")) (transcription) (translation) (cl="rna polymerase") ((varia$) OR (muta$) OR (modif$) OR (substitut$)) (cl=elongat$) (ribosom$) (lysate?)**	**43**

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	**(Sun, Zachary Z[Author] OR Chiao, Abel[Author] OR Robertson, Dan E[Author] OR Metzger, Louis E 4th[Author] OR Mansfield, Richard[Author] OR Trego, Kelly S[Author])**	**45**
2	("cell-free" OR "in vitro") AND (translation AND transcription) AND (lysate)	413

3	("cell-free" OR "in vitro") AND (translation AND transcription) AND (lysate) AND (RNA Polymerase)	72
4	**("cell-free" OR "in vitro") AND (translation AND transcription) AND (lysate) AND (RNA Polymerase) AND (elongat*)**	**4**
5	**("cell-free" OR "in vitro") AND (translation AND transcription) AND (lysate) AND (RNA Polymerase) AND (ribosome)**	**9**

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

#	Search query	Results
1	"cell-free" transcription translation "3-PGA" OR Panox lysate	195
2	"cell-free" transcription translation "3-PGA" OR Panox lysate "RNA polymerase" elongation	79
3	**"cell-free" transcription translation "3-PGA" OR Panox lysate "RNA polymerase" elongation exogenous ribosome**	**31**
4	"cell-free" transcription translation "3-PGA" OR Panox lysate "RNA polymerase" elongation modify OR mutant OR substitution OR alter OR mutation	65
5	**CFPS "cell free" lysate "RNA polymerase" slow elongation modify OR mutant OR substitution OR alter OR mutation T7 OR "Pol II" OR "Pol III" exogenous ribosome**	**46**

Date search was completed: 30 October 2018

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