

No.	Product Description	Year	Title	Author	Article Information	IF (2020)
1	Gene Synthesis Service	2020	Allostery of DNA nanostructures controlled by enzymatic modifications	Qi Yan, Yaqi Wang, Jile Shi, and Bryan Wei	<i>Nucleic Acids Research. 48, 7595-7600</i>	16.971
2	Gene Synthesis Service	2020	Client proximity enhancement inside cellular membrane-less compartments governed by client-compartment interactions	Daesun Song, Yongsang Jo, Jeong-Mo Choi, and Yongwon Jung	<i>Nature Communications. 11, 5642</i>	14.919
3	Gene Synthesis Service	2020	Distinct pseudokinase domain conformations underlie divergent activation mechanisms among vertebrate MLKL orthologues	Katherine A Davies, Cheree Fitzgibbon, Samuel N Young, Sarah E Garnish, Wayland Yeung, Diane Coursier, Richard W Birkinshaw, Jarrod J Sandow, Wil I L Lehmann, Lung-Yu Liang, Isabelle S Lucet, James D Chalmers, Wayne M Patrick, Natarajan Kannan, Emma J Petrie, Peter E Czabotar, and James M Murphy	<i>Nature Communications.11, 3060</i>	14.919
4	Gene Synthesis Service	2020	AAV-Mediated Combination Gene Therapy for Neuropathic Pain: GAD65, GDNF, and IL-10	Daewook Kim, Kyung-Ran Kim, Yejin Kwon, Minjung Kim, Min-Ju Kim, Yeomoon Sim, Hyelin Ji, Jang-Joon Park, Jong-Ho Cho, Heonsik Choi, and Sujeong Kim	<i>Molecular Therapy. 18, 473-483</i>	11.454

5	Gene Synthesis Service	2020	A Chemogenetic Tool that Enables Functional Neural Circuit Analysis	Hoai Buu Ngo, Mariana R. Melo, Sharon Layfield, Angela A. Connelly, Jaspreet K. Bassi, Lin Xie, Clément Menuet, Stuart J. Mc Dougall, Ross A. D. Bathgate, and Andrew M. Allen	<i>Cell Reports. 32,</i> 108139	9.423
6	Gene Synthesis Service	2020	The oligomeric assembly of galectin-11 is critical for anti-parasitic activity in sheep ( <i>Ovis aries</i> )	Dhanasekaran Sakthivel, Sarah Preston, Robin B. Gasser, Tatiana P. Soares da Costa, Julia N. Hernandez, Adam Shahine, M. D. Shakif-Azam, Peter Lock, Jamie Rossjohn, Matthew A. Perugini, Jorge Francisco González, Els Meeusen, David Piedrafita, and Travis Beddoe	<i>Communications Biology. 3,</i> 464	6.268
7	Gene Synthesis Service	2020	Eckol Alleviates Intestinal Dysfunction during Suckling-to-Weaning Transition via Modulation of PDX1 and HBEGF	Sang In Lee and In Ho Kim	<i>International Journal of Molecular Sciences. 21,</i> 4755	5.923
8	Gene Synthesis Service	2020	Efficiency of Recombinant CRISPR/rCas9-Mediated miRNA Gene Editing in Rice	Pil Joong Chung, Hoyong Chung, Nuri Oh, Joohee Choi, Seung Woon Bang, Se Eun Jung, Harin Jung, Jae Sung Shim, and Ju-Kon Kim	<i>International Journal of Molecular Sciences. 21,</i> 9606	5.923
9	Gene Synthesis Service	2020	Cyclic Peptide Mimotopes for the Detection of Serum Anti-ATIC Autoantibody Biomarker in Hepato-Cellular Carcinoma	Chang-Kyu Heo, Hai-Min Hwang, Won-Hee Lim, Hye-Jung Lee, Jong-Shin Yoo, Kook-Jin Lim, and Eun-Wie Cho	<i>International Journal of Molecular Sciences. 21,</i> 9718	5.923

10	Gene Synthesis Service	2020	An infectious cDNA clone of a growth attenuated Korean isolate of MERS coronavirus KNIH002 in clade B	Minwoo Kim, Hee Cho, Seung-Hoon Lee, Woo-Jung Park, Jeong-Min Kim, Jae-Su Moon, Geon-Woo Kim, Wooseong Lee, Hae-Gwang Jung, Jeong-Sun Yang, Jang-Hoon Choi, Joo-Yeon Lee, Sung Soon Kim, Jong-Won Oh	<i>Emerging Microbes and Infections. 9,</i> 2714-2726	5.828
11	Gene Synthesis Service	2020	Golden Gate Cloning-Compatible DNA Replicon/2A-Mediated Polycistronic Vectors for Plants	Jae Hoon Lee, Hyo Jun Won, Eun-Seok Oh, Man-Ho Oh, and Je Hyeong Jung	<i>Frontiers in Plant Science. 11,</i> 559365	5.44
12	Gene Synthesis Service	2020	Structural and mutational analyses of the bifunctional arginine dihydrolase and ornithine cyclodeaminase AgrE from the cyanobacterium <i>Anabaena</i>	Haehee Lee and Sangkee Rhee	<i>Journal of Biological Chemistry. 295,</i> 5751-5760	5.157
13	Gene Synthesis Service	2020	Effects of Graphene Oxide-Gold Nanoparticles Nanocomposite on Highly Sensitive Foot-and-Mouth Disease Virus Detection	Jong-Won Kim, Myeongkun Kim, Kyung Kwan Lee, Kwang Hyo Chung, and Chang-Soo Lee	<i>Nanomaterials. 10,</i> 1921	5.076
14	Gene Synthesis Service	2020	Self-Assembled Multi-Epitope Peptide Amphiphiles Enhance the Immune Response against Enterovirus 71	Yu-Gyeong Kim, Yunsu Lee, Joo Hee Kim, Sun-Young Chang, Jong-Wha Jung, Woo-Jae Chung, and Hyo-Eon Jin	<i>Nanomaterials. 10,</i> 2342	5.076
15	Gene Synthesis	2020	Immunogenicity and Protective Effect of a Virus-Like Particle Containing the SAG1	Won Hyung Choi and Ji Sun Park	<i>Biomedicines. 8,</i> 91	4.757

	Service		Antigen of <i>Toxoplasma gondii</i> as a Potential Vaccine Candidate for Toxoplasmosis			
16	Gene Synthesis Service	2020		Rachael E. Impey, Santosh Panjekar, Cody J. Hall, Lucy J. Bock, J. Mark Sutton, Matthew A. Perugini, and Tatiana P. Soares da Costa	<i>The FEBS Journal.</i> 287, 386-400	4.392
17	Gene Synthesis Service	2020		Jun-Woo Lee, Min-Woo Lee, Ji-San Ha, Dae-Soo Kim, EonSeon Jin, Hyung-Gwan Lee, and Hee-Mock Oh	<i>Scientific Reports.</i> 10, 13947	4.379
18	Gene Synthesis Service	2020		Jong-Jae Yi, Sun-Yeon Heo, Jung-Hyun Ju, Baek-Rock Oh, Woo Sung Son, and Jeong-Woo Seo	<i>Scientific Reports.</i> 10, 18849	4.379
19	Gene Synthesis Service	2020	Inhibition of SARS-CoV 3CL protease by flavonoids	Seri Jo, Suwon Kim, Dong Hae Shin, and Mi-Sun Kim	<i>Journal of Enzyme Inhibition and Medicinal Chemistry.</i> 35, 145-151	4.310
20	Gene Synthesis Service	2020	Inhibition of African swine fever virus protease by myricetin and myricitrin	Seri Jo, Dong Hae Shin, and Mi-Sun Kim	<i>Journal of Enzyme Inhibition and Medicinal Chemistry.</i> 35, 1045-1049	4.310
21	Gene Synthesis Service	2020	Flavonoids with inhibitory activity against SARS-CoV-2 3CLpro	Seri Jo, Suwon Kim, Dae Yong Kim, Mi-Sun Kim, and Dong Hae Shin	<i>Journal of Enzyme Inhibition and Medicinal Chemistry.</i>	4.310

					35, 1539-1544	
22	Gene Synthesis Service	2020	A study of Rose Bengal against a 2-keto-3-deoxy-d- <i>manno</i> -octulosonate cytidyltransferase as an antibiotic candidate	Suwon Kim, Seri Jo, Mi-Sun Kim, and Dong Hae Shin	<i>Journal of Enzyme Inhibition and Medicinal Chemistry.</i> 35, 1414-1421	4.310
23	Gene Synthesis Service	2020	Oral Immunotherapy Using Probiotic Ice Cream Containing Recombinant Food-Grade <i>Lactococcus lactis</i> Which Inhibited Allergic Responses in a BALB/c Mouse Model	Alireza Vasiee, Fereshteh Falah, Mojtaba Sankian, Farideh Tabatabaei-Yazdi, and Seyed Ali Mortazavi	<i>Journal of Immunology Research.</i> 2020, 2635230	4.27
24	Gene Synthesis Service	2020	Engineered Bacteriophage T7 as a Potent Anticancer Agent <i>in vivo</i>	Yoon Jung Hwang and Heejoon Myung	<i>Frontiers in Microbiology.</i> 11, 491001	4.235
25	Gene Synthesis Service	2020	The structural basis of Bcl-2 mediated cell death regulation in hydra	Suresh Banjara, Jaison D Sa, Mark G. Hinds, and Marc Kvensakul	<i>Biochemical Journal.</i> 477, 3287-3297	4.097
26	Gene Synthesis Service	2020	Genetic Manipulation of a Lipolytic Yeast <i>Candida aaseri</i> SH14 Using CRISPR-Cas9 System	Zool Hilmi Ibrahim, Jung-Hoon Bae, Sun-Hee Lee, Bong Hyun Sung, Ahmad Hazri Ab Rashid, and Jung-Hoon Sohn	<i>Microorganisms.</i> 8, 526	3.86
27	Gene Synthesis Service	2020	Optimal RNA Extraction Methods and Development of Synthetic Clones for Seven Strawberry Viruses	Sun-Jung Kwon, Ju-Yeon Yoon, In-Sook Cho, and Bong-Nam Chung	<i>Research in Plant Disease.</i> 26, 170-178	3.809
28	Gene Synthesis Service	2020	Development of a Nuclease Protection Assay With Sandwich Hybridization (NPA-SH) to Monitor Heterosigma akashiwo	Mingyeong Kang, Mirye Park, Kang Eun Kim, and Taek-Kyun Lee	<i>Journal of Life Science.</i> 30, 26-31	3.647

29	Gene Synthesis Service	2020	Field porcine reproductive and respiratory syndrome viruses (PRRSV) attenuated by codon pair deoptimization (CPD) in NSP1 protected pigs from heterologous challenge	Changhoon Park, Jong Hyuk Baek, Sun Hee Cho, Jiwoon Jeong, Chanhee Chae, Su-Hwa You, and Sang-Ho Cha	<i>Virology</i> . 540, 172-183	3.616
30	Gene Synthesis Service	2020	STIM1 knock-down decreases the affinity of obinutuzumab for CD20 by altering CD20 localization to Triton-soluble membrane	W. Heo, N. Jin, M. S. Park, H.-Y. Kim, S. M. Yoon, J. Lee, and J. Y. Kim	<i>Clinical and Experimental Immunology</i> . 200, 260-271	3.532
31	Gene Synthesis Service	2020	Characterization of a profilin-like protein from <i>Fasciola hepatica</i>	Jessica Wilkie, Timothy C. Cameron, and Travis Beddoe	<i>PeerJ</i> . 8, e10503	2.98
32	Gene Synthesis Service	2020	Characterization of novel monoclonal antibodies against MERS-coronavirus spike protein	Junghyun Goo, Yuji Jeong, Young-Shin Park, Eunji Yang, Dae-Im Jung, Semi Rho, Uni Park, Hyeyeong Sung, Pil-Gu Park, Jung-Ah Choi, Sang Hwan Seo, Nam Hyuck Cho, Hyeja Lee, Jae Myun Lee, Jae-Ouk Kim, and Manki Song	<i>Virus Research</i> . 278, 197863	2.934
33	Gene Synthesis Service	2020	Expression, purification, and characterization of the recombinant exo-1,3- $\beta$ -glucanase (Exo1) of the pathogenic oomycete <i>Pythium insidiosum</i>	Tiwa Rotchanapreeda, Yothin Kumsang, Pattarana Sae-Chew, Thidarat Rujirawat, Tassanee Lohnoo, Wanta Yingyong, Penpan Payattikul, Onrapak Reamtong, and Theerapong Krajaejun	<i>Heliyon</i> . 6, e04237	2.85
34	Gene	2020	Evaluation of a new live recombinant vaccine	Samira Salari, Iraj Sharifi, Ali Reza	<i>Parasites and</i>	2.824

	Synthesis Service		against cutaneous leishmaniasis in BALB/c mice	Keyhani, and Pooya Ghasemi Nejad Almani	<i>Vectors. 13, 415</i>	
35	Gene Synthesis Service	2020	Tea Polyphenols EGCG and Theaflavin Inhibit the Activity of SARS-CoV-2 3CL-Protease <i>In Vitro</i>	Minsu Jang, Yea-In Park, Yeo-Eun Cha, Rackhyun Park, Sim Namkoong, Jin I. Lee, and Junsoo Park	<i>Evidence-Based Complementary and Alternative Medicine. 2020, 7</i>	2.40
36	Gene Synthesis Service	2020	Targeting TM4SF5 with anti-TM4SF5 monoclonal antibody suppresses the growth and motility of human pancreatic cancer cells	Sangkyu Park, Dongbum Kim, Jeong -A Park, Hyung-Joo Kwon, Younghee Lee	<i>Oncology Letters. 19, 641-650</i>	2.311
37	Gene Synthesis Service	2020	A Simple Method for the Design and Development of Flavivirus NS1 Recombinant Proteins Using an In Silico Approach	Chulmin Park, Won-Bok Kim, Sung-Yeon Cho, Eun-Jee Oh, Hyeyoung Lee, Kyungjoon Kang, Yoonsuk Lee, and Dong-Gun Lee	<i>BioMed Research International. 2020, 3865707</i>	2.276
38	Gene Synthesis Service	2020	Engineering of a Microbial Cell Factory for the Extracellular Production of Catalytically Active Phospholipase A2 of <i>Streptomyces violaceoruber</i>	Hyun-Jae Lee, Ara Cho, Yeji Hwang, Jin-Byung Park, and Sun-Ki Kim	<i>Journal of Microbiology and Biotechnology. 30, 1244-1251</i>	1.992
39	Gene Synthesis Service	2020	A classical swine fever virus E2 fusion protein produced in plants elicits a neutralizing humoral immune response in mice and pigs	Youngmin Park, Sangmin Lee, Hyangju Kang, Minhee Park, Kyungmin Min, Nam Hyung Kim, Sungmin Gu, Jong Kook Kim, Dong-Jun An, SeEun Choe, and Eun-Ju Sohn	<i>Biotechnology Letters. 42, 1247-1261</i>	1.977
40	Gene Synthesis	2020	Evaluation of the Effects of Human Beta-Interferon Scaffold Attachment Region (IFN-	Ehsan Naghneh, Es'hagh Pourmaleki, and Azam Rahimpour	<i>Pharmaceutical Sciences. 26, 393-</i>	1.663

	Service		SAR) on Expression of Vascular Endothelial Growth Factor- Fc (VEGF-Fc) Fusion Protein Expression in Chinese Hamster Ovary (CHO) Cells		398	
41	Gene Synthesis Service	2020	Cysteine/Histidine-Dependent Amidohydrolase/Peptidase (CHAP)-Displayed Nano Phages: Antimicrobial Function against Methicillin-Resistant <i>Staphylococcus aureus</i> (MRSA)	Golnar Rahimzadeh, Pooria Gill, and Mohammad Sadegh Rezai	<i>Avicenna Journal of Medical Biotechnology. 12, 85-90</i>	1.44
42	Gene Synthesis Service	2020	Design, Expression and Purification of <i>Strongyloides stercoralis</i> IgG4 Immunoreactive Protein (NIE) in <i>Escherichia coli</i>	Katayoun DASTAN, Mehdi ASSMAR, Nour AMIRMOZAFARI, Fariborz Mansour GHANAEI, and Mirsasan MIRPOUR	<i>Iranian Journal of Parasitology. 15, 341-348</i>	1.07
43	Gene Synthesis Service	2020	Metabolic Engineering of MEP Pathway for Overproduction of Lycopene in <i>Saccharomyces cerevisiae</i> Using Pesc-LEU and PTEF1/ZEO Vectors	ALSHEHRI W. A., GADALLA N. O., EDRIS S., ATEF A., HEMEG H., AL-QUWAIE D. A. H., ALSUBHI N. H., KABLI S. A., and BAHIELDIN A.	<i>Applied Ecology and Environmental Research. 18, 5279-5292</i>	0.712
44	Gene Synthesis Service	2020	Expression and Purification of Recombinant Mayaro Virus Envelope Glycoproteins E1 and E2 to Develop a Mayaro Virus Detection System	So Yeon Yi, Kyungah Yoon, Jungsun Kwon, Kyoon Eon Kim, Kyoungsook Park, and Yong Beom Shin	<i>Journal of Bacteriology and Virology. 50, 1144267</i>	0.34
45	Gene Synthesis Service	2020	Expression of Recombinant Fusion Protein of Newcastle Disease Virus from <i>Escherichia coli</i> Plasmid Clone C-2a by <i>In-vitro</i> Cell-free Protein Expression System	Ahmad Pandu Satria Wiratama and Aris Haryanto	<i>BIO Web of Conferences. 20, 04004</i>	



46	Cloning Service	2020	Heme Oxygenase 1-Targeted Hybrid Nanoparticle for Chemo- and Immuno-Combination Therapy in Acute Myelogenous Leukemia	Seok-Beom Yong, Jaehyun Kim, Jee Young Chung, Sehee Ra, Seong Su kim, and Yong-Hee Kim	<i>Advanced Science. 7,</i> 2000487	16.806
47	Cloning Service	2020	Role of intrauterine administration of transfected peripheral blood mononuclear cells by GM-CSF on embryo implantation and pregnancy rate in mice	Delsuz Rezaee, Mojgan Bandehpour, Bahram Kazemi, and Mohammad Salehi	<i>Molecular Human Reproduction. 26,</i> 101-110	4.025