

# Mammalian Cell Expression System

## Mammalian Cell Expression System

Mammalian cell expression system has been widely employed in academic and industrial research to produce various proteins, including antibodies, enzymes, receptors, and other therapeutic proteins. Common cell lines include human embryo kidney 293 (HEK 293), Chinese hamster ovary (CHO) and baby hamster kidney. It offers advantages such as high transfection efficiency, robust growth characteristics, and compatibility with mammalian protein expression and post-translational modification processes. (*Adv Biochem Eng Biotechnol.* 2018, *Front Bioeng Biotechnol.* 2021)

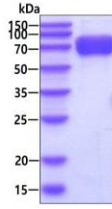
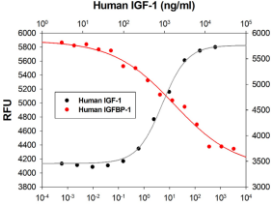
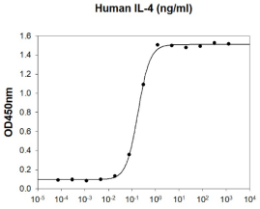
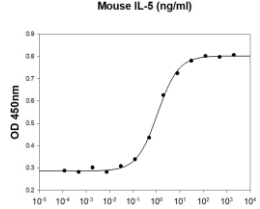
## HEK293 Expression System Related Products

Product name	Species	Tagging	Cat No.
ABP1/AOC1	H	His	ATGP3938
ACE-2	H	hlgG-His	ATGP3963*
<b>BEST</b> ACHE	H	His	ATGP4058*
Akt3	H	His	ATGP4061
<b>NEW</b> Alkaline Phosphatase/ALPL	H	His	ATGP4125*
Alpha 1-Acid Glyco 1/ORM1	H	His	ATGP4089
Angiopoietin-like 7/ANGPTL7	H	hlgG	ATGP4082
<b>NEW</b> APP/Protease Nexin II	H	His	ATGP4122*
B7-H6	H	hlgG-His	ATGP4100*
<b>NEW</b> BACE-2	M	His	ATGP4110*
Betacellulin/BTC	H	His	ATGP4016*
BTLA	M	hlgG-His	ATGP4003
<b>NEW</b> Carbonic Anhydrase X/CA10	H	His	ATGP4115*
Cathepsin C/DPP1	M	His	ATGP4093*
Cathepsin D	H	His	ATGP4086*
CCL2/MCP-1	H	His	ATGP4067*
CD4	H	hlgG-His	ATGP4108*
CD9	H	His	ATGP4064
CD14	H	His	ATGP4095*
CD16a/FCGR3A	H	His	ATGP4098*
CD26/DPP4	H	hlgG	ATGP4109*
CD31/PECAM1	M	His	ATGP4092
<b>NEW</b> CD32a/FCGR2A	H	His	ATGP4116*
CD39L2/ENTPD6	M	His	ATGP3984*
CD40/TNFRSF5	H	hlgG-His	ATGP4007

\* This product has been verified biological activity.

Product name	Species	Tagging	Cat No.
<b>NEW</b> CD99-L2	M	hlgG-His	ATGP4126
Chemerin	H	His	ATGP3855
C-Reactive/CRP	H	His	ATGP3993
DKK1	M	His	ATGP4071
DLL4	H	His	ATGP3954
<b>NEW</b> DSPG3	H	His	ATGP4123*
ENPP-2/Autotaxin	H	His	ATGP4057*
EphB1	H	His	ATGP4038*
Epregulon	H	hlgG-His	ATGP4066*
ErbB4/Her4	H	hlgG-His	ATGP4044*
Erythropoietin/EPO	R	His	ATGP4000*
<b>NEW</b> Fc epsilon RI alpha	H	His	ATGP4124*
FGF-8b	H	His	ATGP4097*
FGF-19	H	His	ATGP3972
FOLR2	H	His	ATGP3987*
F-spondin/SPON1	H	His	ATGP4083
<b>NEW</b> GP1BB	H	His	ATGP4114
<b>NEW</b> HAPLN1	H	His	ATGP4121*
Hyaluronidase 1/HYAL1	H	His	ATGP3941
ICAM-5	H	hlgG-His	ATGP3957
IFN-alpha 1/IFNA1	P	His	ATGP4031
IGFBP-1	H	Non	ATGP4103*
IgG1 Fc	H	Non	ATGP4094*
<b>BEST</b> IL-4	M	His	ATGP3983*
IL-5	M	His	ATGP4028*

H : Human M : Mouse R : Rat C : Canine P : Porcine

<b>BEST</b> ACHE protein (Cat No. ATGP4058)	IGFBP-1 protein (Cat No. ATGP4103)	<b>BEST</b> IL-4 protein (Cat No. ATGP3983)	IL-5 protein (Cat No. ATGP4028)
			
<b>SDS-PAGE</b> Load 3µg by SDS-PAGE under reducing condition and visualized by coomassie blue stain.	<b>Biological Activity</b> Human IGFBP-1 inhibit proliferation using MCF-7 human breast cancer cells in the presence of Human IGF-1. The ED50 range ≤3 µg/ml.	<b>Biological Activity</b> Human IL-4 in a cell proliferation assay using TF-1 human erythron leukemic cell. The ED50 range ≤ 0.5 ng/ml.	<b>Biological Activity</b> Mouse IL-5 in a cell proliferation assay using TF-1 human erythron leukemic cells. The ED50 range ≤ 3 ng/ml.

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## HEK293 Expression System Related Products (continued)

Product name	Species	Tagging	Cat No.
IL-8/CXCL8	C	His	ATGP4043
IL-17A	C	His	ATGP4068*
IL-17E/IL-25	H	His	ATGP4018*
IL-19	H	His	ATGP4024
IL-21R	M	hlgG-His	ATGP4056*
IL-31	C	Non	ATGP4105
Kallikrein 3/PSA	H	His	ATGP3926*
LBP	H	His	ATGP3989
LILRB2/CD85d/ILT4	H	His	ATGP4042
MMP-9	R	His	ATGP4106*
	M	His	ATGP4127*
NKp80/KLRF1	H	hlgG-His	ATGP4063*
Noggin	H	His	ATGP4020
Osteopontin/OPN	M	His	ATGP4052*
OX40 Ligand/TNFRSF4	M	hlgG-His	ATGP3971
Paraoxonase 1/PON1	H	His	ATGP3936*
PD-1	H	hlgG	ATGP4027*
Pentraxin 2/PTX2	M	His	ATGP3858*
PGLYRP1/PGRP-S	H	His	ATGP4036
PIGF	H	His	ATGP4025
PKC iota	H	His	ATGP4081

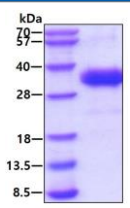
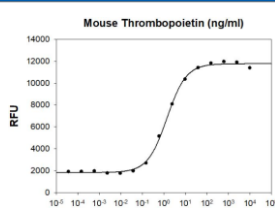
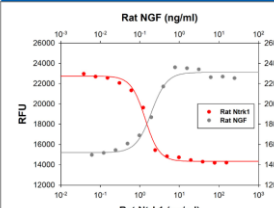
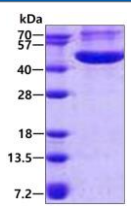
Product name	Species	Tagging	Cat No.
Podocalyxin	H	His	ATGP4090
PRCP	H	His	ATGP4088*
PSGL-1/CD162	H	hlgG-His	ATGP3999
Renin	H	His	ATGP4050
Resistin/RETN	H	His	ATGP3977
Ribonuclease A/RNASE 1	H	His	ATGP4051*
Semaphorin 3C(Mt)	H	hlgG	ATGP4059
SIRP alpha/CD172a	H	His	ATGP4069*
SOST/Sclerostin	M	His	ATGP3975
	H	His	ATGP4011
Thrombopoietin	M	His	ATGP3930*
	H	His	ATGP3970*
Thrombospondin 4/THBS4	M	His	ATGP4035
Thrombospondin 5/COMP	H	His	ATGP4037
TIE1	H	hlgG-His	ATGP4062
TIM-3/HAVCR2	H, M	hlgG-His	ATGP3992
TNFRSF7/CD27	H	hlgG-His	ATGP4060*
TREM2	H	His	ATGP4104
TrkA/NTRK1	R	hlgG-His	ATGP4085*
UNC5H2/UNC5B	R	hlgG-His	ATGP3950
VEGFR1/Flt-1	H	hlgG	ATGP4101*

## CHO Cell Expression System Related Products

Product name	Species	Tagging	Purity	Applications	Cat No.
Angiopoietin 2/ANGPT2	H	His	> 90%	SDS-PAGE	ATGP3853
Chitinase 3-like 1/CHI3L1	H	His-Myc	> 90%	SDS-PAGE	ATGP1962
EGFR	H	hlgG-His	> 90%	SDS-PAGE	ATGP3335

\* This product has been verified biological activity.

H : Human M : Mouse R : Rat C : Canine

Noggin protein (Cat No. ATGP4020)	Thrombopoietin protein (Cat No. ATGP3930)	TrkA/NTRK1 protein (Cat No. ATGP4085)	Chitinase 3-like 1/CHI3L1 protein (Cat No. ATGP1962)
			
<p><b>SDS-PAGE</b></p> <p>Load 3µg by SDS-PAGE under reducing condition and visualized by coomassie blue stain.</p>	<p><b>Biological Activity</b></p> <p>Mouse Thrombopoietin stimulates cell proliferation of the MO7e human megakaryocytic leukemic cells. The ED50 range ≤4 ng/ml.</p>	<p><b>Biological Activity</b></p> <p>Rat NTRK1 in inhibit the cell growth using TF-1 human erythroleukemic cells in the presence of 0.5ng/ml of rat NGF. The ED50 range ≤ 5ng/ml.</p>	<p><b>SDS-PAGE</b></p> <p>Load 3µg by SDS-PAGE under reducing condition and visualized by coomassie blue stain.</p>

## Publications

Moon OJ, et al. An Optimally Fabricated Platform Guides Cancer-Specific Activation of Chemotherapeutic Drugs and Toxicity-Free Cancer Treatment. *Adv Healthc Mater.* 2022 Aug;11(15):e2200765. [PMID: 35670274] **Recombinant EGFR.**

Lee HM, et al. A comparative study of the effects of inhibitory cytokines on human natural killer cells and the mechanistic features of transforming growth factor-beta. *Cell Immunol.* 2014 Jul;290(1):52-61. [PMID: 24879062] **Recombinant IL-4.**