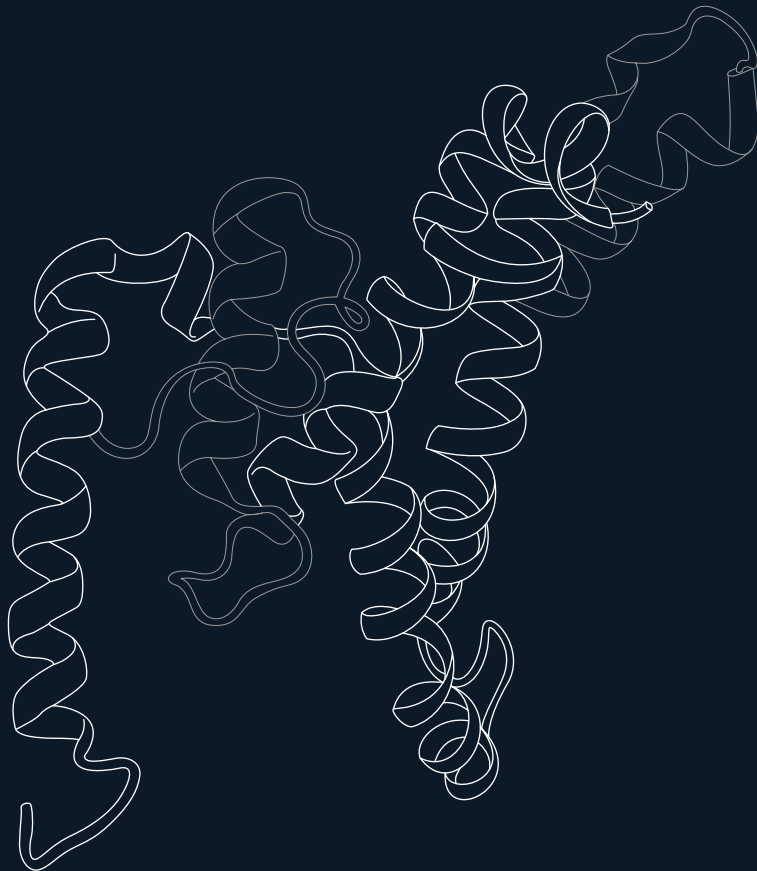




Company Overview

Expertly Designing & Manufacturing
Recombinant Proteins & Enzymes



kactusbio.com
support@kactusbio.us

60 Hickory Drive
Waltham, MA 02451
United States

Our Mission

Deliver reliable recombinant proteins and enzymes with a commitment to quality, speed, and innovation.



Diverse Catalog

We build our catalog on the most relevant drug discovery targets and proteins for today's leading research. Our catalog features over 3000 off-the-shelf recombinant proteins and enzymes, encompassing a wide array of targets, species, tags, and labels to support diverse applications.



Custom Solutions

We produce high-quality proteins and enzymes customized for your research. For specialized projects, we handle complex expressions like soluble TCRs, MHCs, and transmembrane proteins.



Purity & Bioactivity Testing

Our in-house R&D and production teams oversee every aspect of protein design, expression, and quality testing. We perform rigorous QC testing for bioactivity via SPR, ELISA, and BLI, and for purity using SEC-HPLC and PAGE. This ensures that you receive reliable, high-quality proteins and enzymes with consistent performance.



Fast, Reliable Service

Our commitment to fast, reliable service means your research can proceed without delays. We offer an extensive selection of off-the-shelf products, available with next-day overnight shipping to the U.S and 2-4 day international shipping. For custom orders, we deliver standard projects in just 6-8 weeks.



3000+ Recombinant Protein Catalog

A comprehensive catalog for diverse applications in drug development



Immune Checkpoint Proteins

PD-L1	CTLA-4
PD-1	OX40
B7-H3	CD161
LAG-3	



CD3 Proteins

CD3ε	CD3ε/CD3δ
CD3γ	CD3ε/CD3γ
CD3δ	



Fc Receptors

FcγRI	FcεRI
FcγRII	FcεRII
FcγRIII	FcRn
FcγRIIV	IgG4 Fc



CAR-T Targets

CD19	BCMA
MSLN	CD27
Her2	CD22
LILRB2	CD123



Cadherins

E-Cadherin	CDH10
N-Cadherin	CDH16
CDH3	CDH11
CDH6	CDH17



Integrins

Integrin α1β1	Integrin α5β6
Integrin α2β1	Integrin α6β1
Integrin αvβ3	Integrin α8β1
Integrin α5β1	Integrin αLβ2

Featured Products & Services

Specialized Solutions for Modern Therapeutics



Transmembrane Proteins

- **Displayed on virus-like particles (VLPs) or copolymer nanodiscs**
- Full-length multi-pass transmembrane proteins
- Mammalian-expression
- Soluble proteins
- Native conformation

Catalog Membrane Proteins

- MRGPRGX2
- Claudin 9
- CCR8
- Claudin 6
- CD20
- CD24
- GPRC5D
- & more!

Custom Membrane Protein:

- GPCR
- Ion Channel
- 4HB/Tetraspanin
- Solute Carrier
- Claudin



Browse Transmembrane
Protein Products & Services



MHC & TCR

- Class I & Class II
- Monomers & Tetramers
- Biotinylated & Fluorescent MHC-peptide COMPLEXES

Catalog Alleles:

- HLA-A*01:01
- HLA-A*02:01
- HLA-A*02:03
- HLA-A*03:01
- HLA-A*11:01
- HLA-A*24:02
- & more!

Catalog Antigens:

- AFP (FMNKFYIEI)
- KRAS G12D (GADGVGKSAL)
- MAGE-A3 (EVDPIGHLY)
- MART-1 (ELAGIGILTV)
- NY-ESO-1 (SLLMWITQC)
- p53-R175H (HMTEVVRHC)
- & more!

Custom MHC:

- Monomer or Tetramer
- Class I or Class II Allele
- Biotinylation or
Fluorescent-Labeling
- Mammalian or E. coli expression

Custom Soluble TCR Expression:

- Soluble expression of TCRs including
scFv-TCR, TCR-His, etc.
- TCR engineering to optimize soluble TCR
expression based on TCR modeling
- SPR or ELISA analysis of soluble TCR &
MHC interactions



Browse MHC & TCR
Products and Services



Cell & Gene Therapy Reagents

AAV Titration ELISA Kits

Quantify full and empty, intact AAV capsids with specificity to individual serotypes

Catalog No.

AAV2: AV2-MM00B

AAV5: AV5-MM00B

AAV6: AV6-MM00B

AAV8: AV8-MM00B

AAV9: AV9-MM00B

Universal Cas9 Protein ELISA Kit

Quantify residual Cas9 protein via sandwich ELISA with high sensitivity

Catalog No. CAS-MM00B

Research-Grade & GMP-Grade Cytokines

Small-tag or tag-free cytokines with cellular-level bioactivity verification and low internal toxicity

GMP IL-15: GMP-CKS-HE015

GMP IL-7: GMP-CKS-HE007



GMP-Grade Enzymes

CRISPR spCas9 Nuclease

High editing efficiency off-the-shelf Cas9 protein for large-scale gene editing

Catalog No. GMP-CAS-EE109

AccuBase® Cytosine Base Editor

Engineered base editor with near-zero off-target effects

Catalog No. GMP-KD-0001

MaxPure™ T7 RNA Polymerase

Engineered T7RNAP designed to minimize dsRNA byproduct during IVT

Catalog No. GMP-T7P-EE1MP

MaxNuclease™, Nonspecific Endonuclease

Degrade all DNA and RNA for biologics manufacturing

Catalog No. GMP-NUC-SE101



SAMS™: Structure-Aided Multiplex Screening

A multi-faceted rational approach to protein engineering.

Structure-Aided



Sequence Analysis

- Codon optimization
- Optimized leader sequence.



3D Structure Modeling

- Crystallography
- Steric hindrance



Host Cell Selection

- HEK293
- E.Coli
- CHO
- Yeast
- Baculovirus-Insect Cell

Multiplex Screening



Optimal Purification Methods

- Optimization of wash and elution buffer
- Protein concentration, Salt, Temperature, pH, Ionic Strength, Detergents



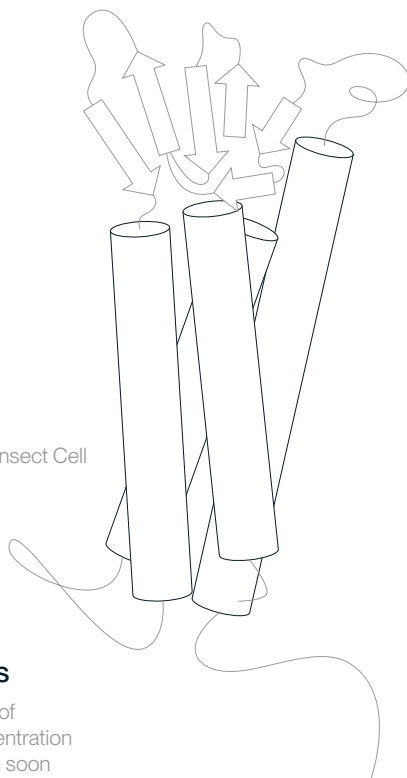
Expression Conditions

- High-quality DNA
- Optimized culture medium
- Proprietary transient transfection reagents
- Induction conditions, culture temperature, agitation, & oxygen



Storage Conditions

- Optimization of protein concentration
- Lyophilization soon after production
- Post-lyophilization activity testing



Custom Protein Production

Complete expertise in construct design, expression characterization, and structure optimization



**6-8 Weeks
Turnaround Time**



**Proteins from
Multiple Species**



Complex Proteins



Custom Protein Services

Off-the-Shelf GMP-Grade Products

Catalog #	Product	Application
GMP-CAS-EE109	CRISPR Cas9 Protein	Gene Editing
GMP-KD-0001	AccuBase® Cytosine Base Editor	Gene Editing
GMP-NUC-SE101	MaxNuclease™, Endonuclease	DNA/RNA Degradation
GMP-T7P-EE1MP	MaxPure™ T7 RNA Polymerase	mRNA Production
GMP-T7P-EE101	T7 RNA Polymerase	mRNA Production
GMP-RNI-ME101	Murine RNase Inhibitor	mRNA Production
GMP-MEH-VE101	mRNA Cap 2'-O-Methyltransferase	mRNA Production
GMP-PYR-YE101	Pyrophosphatase, Inorganic	mRNA Production
GMP-DNI-EE001	DNase I, RNase-free	mRNA Production
GMP-VCS-VE101	Vaccinia Capping Enzyme	mRNA Production
GMP-BSA-EE101	Bsal	mRNA Production
GMP-CKS-HE015	GMP Human IL-15	Cell Culture
GMP-CKS-HE007	GMP Human IL-7	Cell Culture

Customizable GMP Documentation Package

- Datasheet
- CoA
- CoO
- MSDS
- Melamine Statement
- TSE/BSE Statement
- Nitrosamine Statement
- DMF Filing



ISO13485
Certified



FDA Drug Master
File Certifications

Seamless Transition from Research to GMP

Utilize our affordable research-grade enzymes during preclinical stages to simplify your process development efforts. With the same purity and performance as GMP-Grade, you will be able to seamlessly transition to clinical manufacturing, while ensuring stability, safety, potency, and purity in your final biologics.

- ✓ Stability Testing
- ✓ Quality Management System
- ✓ Process & Analytical Method Optimization
- ✓ Documentation System



Our story

How did we get here



Contact Us

support@kactusbio.us kactusbio.com