



N 纽龙生物
UPTEC

FL:GEN

RECOMBINANT PROTEIN PHYCOBILIPROTEIN

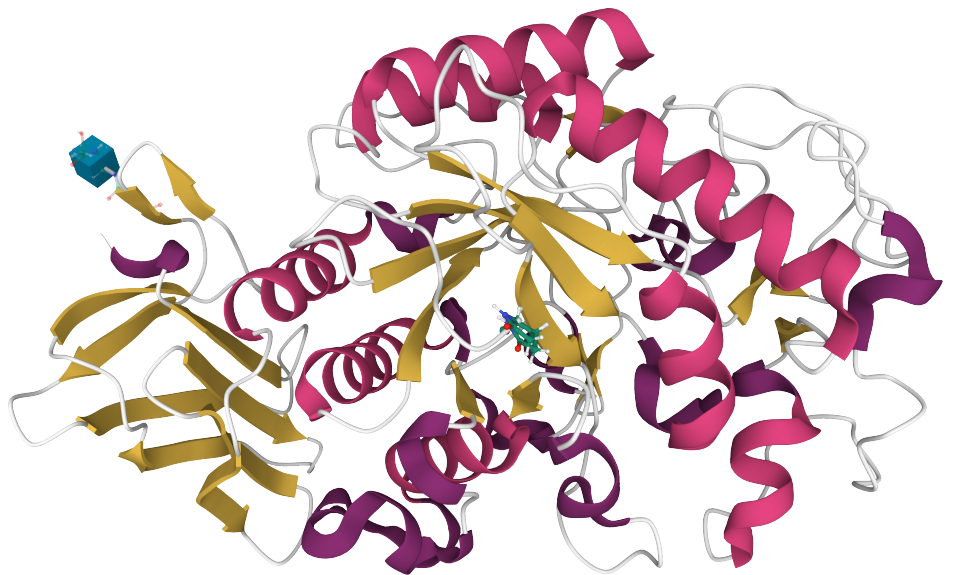





Table of Content

Nupectec [®] Recombinant proteins.....	2
Flogen [®] Phycobiliprotein Product List.....	4
Streptavidin.....	4
Flogen [®] Streptavidin Conjugate.....	5
Nupectec [®] Growth Factors Product List.....	5
Nupectec [®] Growth factor and Enzymes for cosmetics.....	5
Nupectec [®] Tool Proteins.....	6
Nupectec [®] Enzymes Product List.....	6
NUPharose [®] Gels.....	6
Nupectec [®] Pre-packed columns.....	7
Contact us.....	8



Nuptec® Recombinant proteins

GMP Grade Protein

Nuptec R&D and production base has a 100,000-level GMP purification workshop and a well-trained and experienced R&D, production, quality inspection and management team, and has passed the ISO-9001 quality management system certification to ensure that the products are in stable production in strict accordance with the requirements.

Nuptec produces active protein/polypeptide products and bio-separation materials on a large scale. It has formed recombinant bioactive proteins including cell growth factors, affinity separation ligands and tool enzymes.

Why Choose Nuptec?

Our recombinant proteins are:

- >95% pure, biologically active
- Flexible packaging size
- Competitively priced
- Annual production batch capacity reaches kilograms
- small batch to batch differences



Reliable and Consistent Research with Nuptec

Our catalog includes cell growth factors, affinity separation ligands and tool enzymes. And two major types of product structures containing affinity, ion exchange, hydrophobic and other NUPharose® separation materials.

- Expressed with E.coli, and yeast (pichia pastoris) system
- Animal-free formats to avoid animal pathogens and experimental variability
- Suffice your need with fast service
- Recombinant protein is purified using in-house premium gels

Common use of our recombinant proteins

- Cell Culture
- Cell Activation
- Cell Expansion
- Differentiation
- Cosmetics materials

the core values of NUPTEC



**Commit itself to
global life sciences**



**Enterprising
and Innovation**



**Honesty
Dedication**

Bulk Quantities and flexible packaging

Nuptec is competitive in mass production with the same high quality in each single vials with great flexibility.

Bringing you stable & bioactive solutions

Protein purity by SDS-PAGE analysis

Protein activity BALB/c 3T3 Cell proliferation test

Samples are stable for up to twelve months from date of receipt at -20°C to -80°C



Endotoxin testing

To assure it is safe for use in biological systems, our recombinant proteins are Endotoxin tested by the **LAL (Limulus Amoebocyte Lysate)** assay method. The endotoxin levels of our proteins are guaranteed to be less than 5 EU per mg protein. However, for most proteins, the actual measured endotoxin values are consistently below this stated value.

Flogen® Phycobiliprotein Product List

FLOGEN, with world-leading expertise in large-scale microalgae cultivation from Far East Microalgae Co. Ltd., holds the core technology in bulk protein production, purification and conjugation. Our team is recognized globally as a specialty manufacturer and supplier



of Phycobiliproteins and Streptavidin Conjugates by world-renowned biotechnology and clinical diagnostic companies

Phycobiliproteins are stable and water-soluble proteins derived from cyanobacteria and certain algae. Shipped with ice pack as a suspension in 100 mM Potassium Phosphate buffer, pH7.0 with 60 % Saturated (NH₄)₂SO₄, 1 mM EDTA and 1 mM Sodium Azide.

RM-1	R-Phycoerythrin
RM-3	Allophycocyanin
RM-4	Cross-linked Allophycocyanin
RM-5	C-Phycocyanin
RM-9	R-Phycocyanin

Streptavidin

Streptavidin is a homotetrameric protein found in the culture broth of *Streptomyces avidinii*. Similar to avidin, one mole of streptavidin can bind 4 moles of biotin with a high affinity virtually unmatched in nature.



Cat. No.	Product
A05S	Streptavidin (r-SA)
A09S	Core Streptavidin (r-cSA)
A12S	Minimum Streptavidin
A18S	Core Streptavidin 2 (r-cSA2)
A36S	Core Streptavidin 4 (r-cSA4)
LcSA	Lyophilized core Streptavidin

Flogen® Streptavidin Conjugate

Flogen's reputable conjugates produced from our premium material under strict production and QC process. Cost efficient, highly stable, and can be customized to meet desired specifications.



1SA	R-Phycoerythrin
4SA	B-Phycoerythrin
SAF	Allophycocyanin

Nuptec® Growth Factors Product List

Growth factor, any of a group of proteins that stimulate the growth of specific tissues. Growth

factors play an important role in promoting cellular

differentiation and cell division, There are a number of different growth factors, and one way to classify them is by the ability of each family to affect specific cell types.

Examples include:

- Epidermal growth factor (EGF) – inhibitors of differentiation of progenitor cells such as satellite cells, endothelial cells, fibroblast, and adipogenic cells.
- Vascular endothelial growth factor (VEGF) – inhibitor of blood vessel development.
- Basic Fibroblast growth factor (bFGF) – enhancer of cell differentiations.



Cat. No.	Product
A02S	Human Growth Hormone (rh-GH)
A03S	Human Vascular Endothelial Growth Factor (rh-VEGF165)
A07S	Human Fibroblast Growth Factor-basic (rh-bFGF)
A11S	Human Epidermal Growth Factor (rh-EGF)
A15S	Human Fibroblast Growth Factor-acidic (rh-aFGF)
A25S	Human Serum Albumin (rh-HSA)

Nuptec® Protein A/G/AG/L

Cat. No.	Product
A04S	Staphylococcal Protein A (r-SPA)
A06S	Streptococcal Protein G (r-SPG)
A08S	Alkali-tolerant Protein A (rat-PA)
A14S	Protein A/G (r-PAG)
A17S	Strep-Tactin with Cysteine (r-STc)
A21S	Peptostreptococcus magnus Protein L (r-PPL)
A30S	Easily-Eluted Protein G (ee-ProG)

Nuptec® Protease

Cat. No.	Product
A01S	Human Copper,Zinc-Superoxide Dismutase (rhCu,Zn-SOD)
A13L	Bovine Enterokinase (rb-EK)
A16L	Streptavidin Conjugated with Horseradish Peroxidase (SA-HRP)
A19L	Bovine Enterokinase-His tag (rbEK-His)
A29S	Kunitz-type Soybean Trypsin Inhibitor (r-KSTI)
A31S	SUMO Protease 1, His-tag (SUMO-P1(His))
A32S	SUMO Protease 1, GST-tag (SUMO-P1(GST))
A37S	BirA Biotin Ligase, CBD-tag (rC-BirA)
A38S	Human Manganese Superoxide Dismutase (rhMn- SOD)

NUPharose® Chromatography Resin - Affinity Resin

Cat. No.	Product
B01L	Protein A NUPharose Fast Flow
B02L	Protein G NUPharose Fast Flow
B03L	Human VEGF NUPharose Fast Flow
B04L	Human bFGF NUPharose Fast Flow
B06L	Alkali-tolerant Protein A NUPharose Fast Flow
B07L	Nickel Iminodiacetic acid NUPharose Fast Flow
B08L	Glutathione NUPharose Fast Flow
B09L	Heparin NUPharose Fast Flow
B10L	Soybean Trypsin inhibitor NUPharose Fast Flow
B13L	Protein AG NUPharose Fast Flow
B17L	Dextrin NUPharose Fast Flow
B19L	IgG NUPharose FF pre-packed column
B41L	Streptavidin NUPharose Fast Flow
B42L	Strep-Tactin NUPharose Fast Flow
B44L	Biotin NUPharose Fast Flow
B51L	Cobalt NUPharose Fast Flow
B52L	Recombinant Protein L NUPharose Fast Flow
B56L	Glutathione NUPharose 4B
B57L	Nickel Nitrilotriacetic acid NUPharose Fast Flow
B58L	Nickel tris (carboxymethyl) ethylene diamine NUPharose Fast Flow
B59L	Easy Elution Protein G NUPharose Fast Flow
B60L	Easy Elution Streptavidin NUPharose Fast Flow
B74L	Iminodiacetic acid NUPharose Fast Flow
B76L	Immobilized Metal ion Affinity Chromatography NUPharose Fast Flow

Ion Exchange Resin

Cat. No.	Product
B21L	DEAE NUPharose Fast Flow
B22L	Q NUPharose Fast Flow
B23L	CM NUPharose Fast Flow
B24L	SP NUPharose Fast Flow
B25L	Anionic MMC NUPharose Fast Flow

Hydrophobic Resin

Cat. No.	Product
B31L	Phenyl NUPharose Fast Flow
B32L	Octyl NUPharose Fast Flow
B33L	Butyl NUPharose Fast Flow

Pre-Activated Resin

Cat. No.	Product
B11L	NHS Activated NUPharose Fast Flow
B12L	Epoxy Activated NUPharose Fast Flow
B75L	Epoxy Activated NUPharose 6B

1. Why choose Nupotec recombinant proteins?

Nupotec is one of the few companies that produces recombinant proteins in tens of kilograms level since 2009 and gained many positive feedback from the market. Since 2014, Nupotec has manufactured gels for protein purification and will reach 120 tons annual capacity by 2023. We are capable of controlling the quality of our recombinant protein by both self-made gels and proteins.

2. How does the activity of your recombinant proteins compare to competitors?

We provide the best possible product that match our customer's needs and make sure the documents records are kept for each lot. We welcome you to try and compare our products with your current recombinants.

3. What is the specific activity or ED50 of my recombinant protein?

We list specific activity of recombinants in our product COA. It's often within a certain range due to the nature of activity varies according to many reasons.

4. Have your recombinants been tested for stability?

Yes, we have conducted stability test and samples are stable for up to twelve months from date of receipt at -20°C to -80°C .

5. Does specific activity of a recombinant protein vary between lots?

Specific activity definitely varies between lots but all conforms with the requirement. The differences in activity are quite small to ensure lot-to-lot consistency.

6. How do you convert activity as an ED50 in ng/ml to a specific activity in Units/mg?

Please contact us for your interested recombinants so we can provide you accurate conversion.

Subject bioactivity (IU/ml) = $\text{Pr} \times \text{Ds} \times \text{Es} / (\text{Dr} \times \text{Er})$

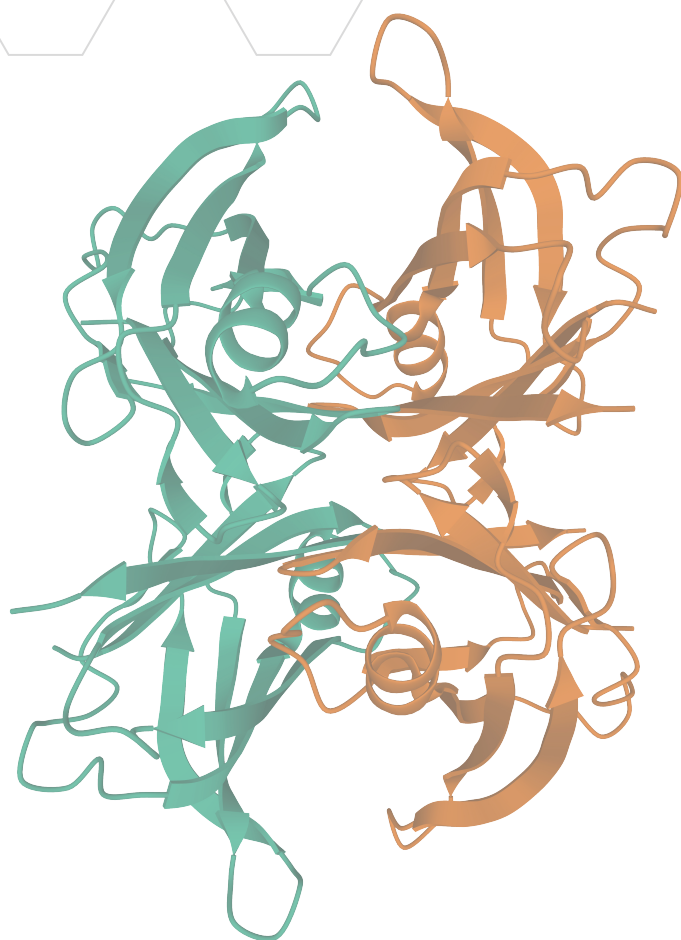
Pr = bioactivity of standard, IU/ml

Ds = dilution fold of subject

Dr = dilution fold of standard

Es = dilution fold of subject equivalent to half effective dose of standard

Er = dilution fold of half effective dose of standards



Contact us

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Alpharpharma is ISO9001:2015 certified

