



RUO protein과 동일한 activity, 더 엄격한 QC!

Animal-free GMP protein

Who needs Animal-free GMP protein?

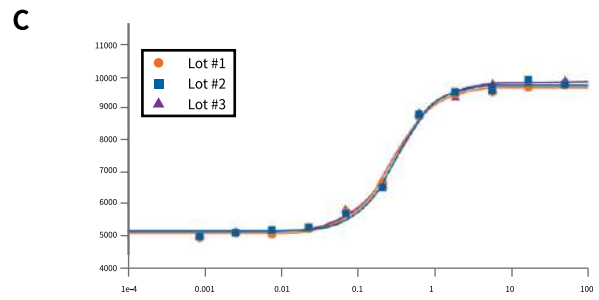
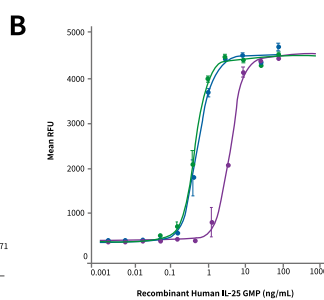
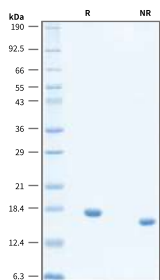
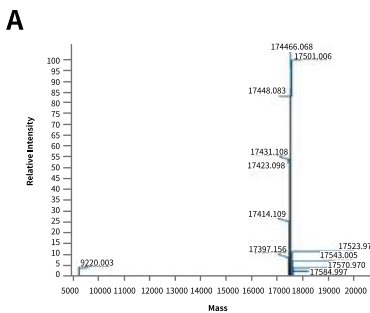
- 세포치료제 개발 중이신가요?
- 미량의 동물 성분 또는 mammalian pathogen의 존재로 인한 side effect 가 우려되나요?
- 규제 혹은 윤리적 문제로 인해 동물 유래 시약 사용이 꺼려지나요?



그렇다면 **Animal-free GMP protein**를 사용하세요!

Why R&D Systems GMP protein?

- 국제 표준에 맞춘 QMS : ISO9001, ISO13485
- 보다 엄격한 Guideline : USP Chapter <1043>*, Ph. Eur. General Chapter 5.2.12**, USP Chapter <71>***
- 보장된 Purity, Bioactivity, 그리고 Consistency (아래 data 참고)
- 강화된 QC Testing : MS, Mycoplasma, HCP/HCD, sterility



A. MS, SDS-PAGE 두 가지 방법으로 purity check

B. 타사에 비해 높은 bioactivity (catalog# 247-GMP; green and blue, other supplier; magenta)

C. Lot to lot consistent

* : Qualification of ancillary materials for Cell, Gene, and Tissue-Engineered Products.

** : Qualification of raw materials of biological origin for the production of cell-based and gene therapy medicinal products.

*** : Sterility testing of sterile drug products produced by aseptic processing.

GMP Protein List

✓ Animal free GMP Protein

Protein(Human)	Source	Catalog #GMP Animal-Free
Betacellulin	E.coli	BT-BTC-GMP
BMP-4	E.coli	314E-GMP
EGF	E.coli	236-GMP
FGF basic (145 aa)	E.coli	3718-GMP
Flt-3 Ligand/FLT3L	E.coli	308E-GMP
GM-CSF	E.coli	215-GMP
IFN- γ	E.coli	285-GMP
IGF-I	E.coli	291-GMP
IL-1 β	E.coli	201-GMP
IL-2	E.coli	BT-002-GMP
IL-3	E.coli	203-GMP
IL-4	E.coli	204-GMP
IL-6	E.coli	206-GMP

Protein(Human)	Source	Catalog #GMP Animal-Free
IL-7	E.coli	BT-007-GMP
IL-10	E.coli	1064-GMP
IL-15	E.coli	BT-015-GMP
IL-21	E.coli	8879-GMP
LR3 IGF-I	E.coli	8335D-GMP
M-CSF	E.coli	216-GMP
PDGF-AA	E.coli	221-GMP
PDGF-BB	E.coli	220-GMP
SCF/c-kit Ligand	E.coli	255B-GMP
Sonic Hedgehog (C24II) N-Terminus	E.coli	1845-GMP
Sonic Hedgehog N-Terminus	E.coli	1314-GMP
Thrombopoietin	E.coli	288E-GMP
TNF- α	E.coli	210-GMP

✓ GMP Protein

Protein(Human)	Source	Catalog #GMP
Activin A	CHO	338-GMP
BMP-2	CHO	355-GMP
GDF-8/Myostatin	NS0	788-GMP
GDNF	NS0	212-GMP
HGF	NS0	294-GMP

Protein(Human)	Source	Catalog #GMP
KGF/FGF-7	E.coli	251-GMP
Noggin Fc Tag	NS0	3344-GMP
TGF- β 1	CHO	240-GMP
Wnt-3a	CHO	5036-GMP