CERTIFICATE OF ANALYSIS

PRODUCT: Recombinant Human Tumor Necrosis Factor, Variant FOR RESEARCH

BATCH NO.: Lot specific MANUFACTURING DATE: Lot specific

SIZE: All pack sizes RETEST DATE: Lot specific

TEST BASIS: ENTERPRISE STANDARD

CATALOG #: 1130-012

Item	**Standard**	**Result**
Characteristics	White Freeze-dried Powder	Conformed
pH	7.0±0.5	7.02
SDS-PAGE Electrophoresis Purity	>98%	Conformed
HPLC Purity	>98%	98.47%
Specific Biological Activity	>1.0×10^8 IU/mg ED_{50} (L929) = <0.01 ng/ml	1.46×10^8 IU/mg Conformed
Molecular Weight	16.9±1.7 KDa	Conformed
Bacterial Endotoxins	<1.0 EU/μg rHuTNF, V	<0.06 EU/μg
The product is tested according to the enterprise standard. The result is QUALIFIED.		

* Gold Biotechnology, Inc. provides this Certificate of Analysis in good faith and to the best of its knowledge. It should not be substituted for the user's own raw material quality control. This material is for laboratory use only.

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