Certificate of Analysis

Product name	**Fetal Bovine Serum（Standard）**	**Specification**	500ml
Brand	TEEC CHEE	**Brand owner**	Yunchee Technology (Qinhuangdao) Co., Ltd.
Item No.	YCF1003	**Production date**	2026.03.25
Batch No.	20260303	**Expiry date**	2031.03.24
Filtration	Triple 0.1 μm filtered	**Storage**	< -20℃
Origin	China ; EU Approved	**Manufacturer**	Beijing Waterdrop Seq Biotechnology Co., Ltd.
Additional Notes	☐ Heat Inactivation ☐ Irradiation		

理化指标检测 Physical and Chemical Indicators

测试项目 Tests	测试方法 Methods	计量 Units	标准 Specifications	结果 Results
外观检测 Appearance	目视法 Visual Control	-	透明的琥珀色的液体 Clear straw to amber liquid	一致 Conform
大肠埃希菌噬菌体 Escherichia coli phage	噬斑法和增殖法 Plaque method and proliferation method	-	未检测出 Not detected	未检测出 Not detected
酸碱度 pH	电位法 Potentionmetric analysis	-	7.0-8.5	7.99
渗透压 Osmolality	冰点渗透压 Freezing point . EU Ph. 2.2.35	mOsm/kg	250-330	298mOsmol/kg
内毒素 Endotoxin	凝胶法 Gel-clot Test Method	EU/ml	≤5	<5EU/ml
血红蛋白 Haemoglobin	比色法 Colorrimetric assay	mg/L	≤200	36
总蛋白 Total protein	二脲比色法 Biuret colorimetry	g/L	30-45	39
γ-谷氨酰转移酶 Gamma Glutamyl transferase	酶联免疫吸附试验 ELISA	U/L	<50	32

无菌和病毒检测 Sterility and Virus Testing

测试项目 Tests	测试方法 Methods	计量 Units	标准 Specifications	结果 Results
细菌和真菌 Bacteria and Fungi	培养法 Culture	-	阴性 Negative	阴性 Negative
支原体 Mycoplasma	荧光定量 PCR RT-qPCR	-	阴性 Negative	阴性 Negative
蓝舌病毒 Bluetongue	荧光抗体 Fluorescent Antibody	-	未检测出 Not detected	未检测出 Not detected
牛腺病毒 Bovine Adenovirus	荧光抗体 Fluorescent Antibody	-	未检测出 Not detected	未检测出 Not detected
牛细小病毒 Bovine Parvovirus	细胞培养观察 Cell culture observation	-	未检测出 Not detected	未检测出 Not detected
牛呼吸道合胞病毒 Bovine Respiratory Syncytial Virus	荧光抗体 Fluorescent Antibody	-	未检测出 Not detected	未检测出 Not detected
牛病毒性腹泻病毒 Bovine Viral Diarrhea Virus	荧光抗体 Fluorescent Antibody	-	未检测出 Not detected	未检测出 Not detected
狂犬病毒 Rabies	荧光抗体 Fluorescent Antibody	-	未检测出 Not detected	未检测出 Not detected
呼肠孤病毒 Reovirus	荧光抗体 Fluorescent Antibody	-	未检测出 Not detected	未检测出 Not detected

牛传染性鼻气管病毒，IBR	细胞病变因子 Cytopathogenic Agents	-	未检测出 Not detected	未检测出 Not detected
副流感病毒 3 型， PI3	血吸附因子 Hemadsorbing Agents	-	未检测出 Not detected	未检测出 Not detected
β 血清中和抗体效价 Beta Serum Neutralization Titer				
BVDV1 型 BVDV Genotype1	细胞病变效应 Cytopathic Effect	-	/	1:2
BVDV2 型 BVDV Genotype2	细胞病变效应 Cytopathic Effect	-	/	1:2
BVDV 双阴血清鉴定 BVDV Double-Negative Serum Testing				
BVDV 抗原 BVDVAntige	荧光定量 PCR RT-qPCR	-	阴性 Negative	阴性 Negative
BVDV 抗体BVDVAntibody	酶联免疫吸附试验 ELISA	-	阴性 Negative	阴性 Negative

蛋白和其他 Proteins/Other

测试项目 Tests	计量 Units	结果 Results
白蛋白 Albumin	g/dL	1.72
碱性磷酸酶 Alkaline Phosphatase	U/L	135
血液尿素氮 Blood Urea Nitrogen	mg/dL	4.3
肌氨酸酐 Creatinine	mg/dL	0.35
Y 球蛋白 Gamma Globulin	%	1.1
葡萄糖 Glucose	mmol/L	6.30
谷氨酰草酰乙酸转氨酶(SGOT) Glutami Oxaloacetic Transaminase(SGOT)	U/L	65
谷丙酮转氨酶(SGPT)Glutamic Pyruvic Transaminase(SGPT)	U/L	<10
IgG 含量 IgG-Nephelometer	ug/mL	69
乳酸脱氢酶 Lactate Dehydrogenase	U/L	468
总胆红素 Total Bilirubin	umol/L	3.0
钙 Calcium	mmol/L	3.06
氯 化 物 Chloride	mmol/L	103.3
无机磷 Inorganic Phosphorus	mmol/L	2.89
铁 Iron	umol/L	32.9
饱和度百分比(铁)Percent Saturation(Iron)	%	78.4
钾 Potassium	mmol/L	9.83
钠 Sodium	mmol/L	144.3
总铁结合能力 (TIBC)Total Iron Binding Capacity(TIBC)	umol/L	44.2

电泳图谱 Electrophoretic profile

测试项目 Tests	计量 Units	结果 Results
白蛋白 Albumin	%	44.7
α 1-球蛋白 Alpha-1 Globulins	%	4
α 2-球蛋白 Alpha-2 Globulins	%	16.5
β-球蛋白 Beta Globulins	%	35.7
γ-球蛋白 Gamma Globulins	%	1.1

细胞生长表现 Support cell proliferation test

测试项目 Tests	测试方法 Methods	计量 Units	标准 Specifications	结果 Results
Sp2/0-Ag14 细胞生长：最大细胞密度 Sp2/0-Ag14 cell growth : Maximum cell density	Internal validated method	Number	≥1X10^6	1.21X10^6
Sp2/0-Ag14 细胞生长：倍增时间 Sp2/0-Ag14 cell growth:doubling time	Internal validated method	H	≤16	14.96
Sp2/0-Ag14 细胞克隆率 Sp2/0-Ag14 cell cloning effeciency	Internal validated method	%	≥80%	85.7%
293T 细胞相对生长率 293T cell relative growth rate	Internal validated method	%	≥80%	92.2%
A549 细胞相对生长率 A549 cell relative growth rate	Internal validated method	%	≥80%	89.6%
THP-1 细胞相对生长率 THP-1 cell relative growth rate	Internal validated method	%	≥80%	93.9%

Note:

1. All Fetal Bovine Serum products supply to Industrial use in China have to granted a cerificated from CMBAThe China Medicinal Biotech Association).And we provide Veterinary Certificate for every order from oversea issued from China Customs.
http://www.cmba.org.cn/adminindex.php?m=content&c=index&a=lists&catid=82
2. This product was manufactured from Fetal bovine blood cllected in China Inspected abattoirs located in China.
3. China is not a mad cow disease epidemic area.China Government News in 2014 mentioned. https://www.gov.cn/xinwen/2014-06/01/content 2691718.htm
4. On May 27th,the third plenary session of the 82nd session of the World Organization for Animal Health (OIE)discussed and recognized that the risk of mad cow disease in mainland China can be ignored.On May 29th,OIE President Dr.Schwabenbor and Director General Dr. Varat presented certificates to the Chinese delegation and congratulated.
https://www.thebeefsite.com/news/45873/china-declared-negligible-risk-of-bse

Department:	Quality Department
Quality Inspector:	
Quality inspection time:	2026.04.01
Auditor:	
Audit time	2026.04.01