Certificate of Analysis

Ensuring Integrity in Every Cell Line

Product	SHZ-88	**Passage Number**	3
Species	Rat	**Cell Count per mL**	2.0 million
Cytion™ Number	305209	**Volume per ampule**	1.5
Lot Number	305209-310823	**Freeze Date**	31.08.2023
Product Format	cryovial	**Freeze Medium**	Serum-free freeze medium
Storage Conditions	Below -150°C	**Expiration Date**	Not applicable

At Cytion, we ensure the quality and reliability of our cell lines through in-house and third-party testing, including:

1. **STR Profiling:** To authenticate cell line[1] identity
2. **Virus Testing:** For species-specific[2] viruses where possible
3. **Mycoplasma Testing:** To prevent contamination.
4. **Interspecies Contamination Testing:** To ensure purity.
5. **Bacteria and Fungi Testing:** To ensure cells are free from microbial contaminants.

1: Human, Mouse, Rat, Hamster and Canine Species.
2: Human, Mouse, Rat, Hamster, Bovine, and Porcine Species.

Test Overview	Methodology	Acceptance Criteria	Outcome
Post-Freeze Viability	Viability assessment using Vi-CELL BLU by Beckman Coulter (analyzing 100 images per sample, 200 µl cell suspension per test)	≥70% post-thaw cell viability	93.0%
Recovery	Culture in the appropriate growth medium, microscopic evaluation	> 80% confluence within the expected recovery period	A T25 culture flask seeded at a density of 4.7 x 10^4 viable cells per cm^2 typically reaches approximately 90% confluence within 2 days.
Growth Properties	Observation of cell culture behaviour to determine if cells are adherent, suspension, or semi-adherent	Cells exhibit expected growth properties consistent with the cell line's characteristics	Adherent
Sterility Testing	Visual inspection	Absence of microbial growth (bacterial, fungal, or yeast)	Pass
Mycoplasma Testing	PCR-based detection assay with specific primers targeting Mycoplasma DNA	No detectable Mycoplasma contamination confirmed by PCR	Pass

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	Species	Status
Interspecies Contamination Testing	Mouse	-
	Rat	+
	Human	-
	Chinese hamster	-
	African green monkey	-

	Marker	Alleles
Authentication	1	96, 105
	13	121
	15	232
	16	226, 247
	19	175, 178
	2	128
	24	249, 253
	26	158, 166
	3	160, 162
	30	192, 194
	34	188
	35	203
	36	242
	4	238
	42	144
	55	208, 218
	59	145, 184
	61	128
	62	166, 176
	67	154
	69	139
	70	158, 175
	73	194

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	Marker	Alleles
Authentication	75	184
	78	147, 153
	79	172
	8	234, 236
	81	128, 130
	90	174, 176
	91	211
	96	210
	Identity match	Unique profile

	Pathogen	Result
Species-Specific Pathogen Testing	LCMV	-
	Mycoplasma pulmonis	-
	KRV	-
	RMV	-
	RPV	-
	H1	-
	PVM	-
	rCMV	-
	RCV/SDAV	-
	Sendai	-

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Third-Party Certified Quality Assurance

Since 2023, IDEXX has conducted STR profiling, species-specific pathogen testing, and species contamination analysis to ensure the authenticity, purity, and safety of our cell lines.

IDEXX BioAnalytics

The information provided is believed to be accurate, but both the information and product are offered without warranty for any applications beyond those specified. This certificate confirms that the material has been tested and is pure to the best of our knowledge.

This product is intended solely for laboratory research use and is not for use in humans, animals, or diagnostics. Proper Biosafety Level practices are required.

Cytion products may not be resold, modified for resale, or used commercially without prior written consent from Cytion.

Manufactured in Germany under our ISO 9001:2015 certified Quality Management System, ensuring high standards of quality and reliability.

Dr. R. Steubing

ID: E055A9F2-739E-4138-96C7-B715E27DBEB8
Reason: Approved <r.steubing@cytion.com>
April 08, 2025 04:29 PM CEST

Qualified personnel have validated the test results of this Certificate of Analysis and attested with their signature that the tests were conducted as reflected in the results presented here.

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