



Report on the Stability of Four Mycoplasma Experience (ME) Products

Purpose of report: Longer transit times for shipments to the EU, where they used to be 1 or 2 days transit. ME ships frozen media products in insulated containers with frozen gel packs to minimise thawing over 1-2 days. With longer transit times, ME has tested media at maximum 3 weeks at ambient temperatures to validate media covering long transit times.

The most common products are:

MS – Mycoplasma Solid Medium

ML – Mycoplasma Liquid Medium

AS – Avian Solid Medium

AL – Avian Liquid Medium

Method: Three bottles of each media we placed from the freezer inside a polystyrene box with a temperature tracker started at the same time. No cool packs were used so they were at 100 % ambient conditions. A bottle was taken out and placed at the correct freezer storage temperature (-20°C for supplement and -70°C for liquid) at a) 1 week, b) 2 weeks and c) 3 weeks. All bottles were then tested together with our standard QC Mycoplasma species and a current batch used as a control.

MS – Mycoplasma Solid Medium

Covers product codes MS1 and MS5

Batch used: 11 NOV 20

Date initiated: 15th February 2021

Start test date: 12th March 2021

Control lot: 10

ML – Mycoplasma Liquid Medium

Covers product codes ML5, ML10, ML50, MLP

Batch used: 19 NOV 20

Date initiated: 23th February 2021

Start test date: 19th March 2021

Control Liquid lot: 11 Control Solid Lot: 11

AS – Avian Solid Medium

Covers product codes AS1 and AS5

Batch used: 03 MAR 21

Date Initiated: 9th March 2021

Start test date: 31.03.2021

Control lot: Av 4.2

AL – Avian Liquid Medium

Covers product codes AL5 and AL10

Batch used: 03 MAR 21

Date Initiated: 9th March 2021

Start test date: 31.03.2021

Control lot: Av 17 MAR 21

**Results:**

Solid Counts are CFU on the agar plate. Liquid numbers are the day of colour change.

MS – Mycoplasma Solid Medium

Organism & Strain	Storage	Dilution				
			Control	1 week	2 weeks	3 weeks
<i>M. arginini</i> 69D	15/04/2016	log -2	25	34	34	31
<i>M. orale</i> T24.MM	27/09/2018	log -3.5	26	47	38	35
<i>M. hyopneumoniae</i> JF685	02/02/2015	log 4.5	30	78	48	48
<i>M. pneumoniae</i> 5167	02/10/2017	log -4	21	27	26	37
<i>M. synoviae</i> 263	14/12/2017	log -5	30	13*	26	37
<i>A. laidlawii</i> 25C	29/01/2020	log -2	60	50	50	69
<i>M. gallisepticum</i> A70	27/08/2019	log -4	29	30	31	34
<i>M. hyorhinae</i> 29052	26/09/2017	log -5	28	28	28	32

*Repeat *M. synoviae* 1 week on 19.03.21. Count: 42. Control lot 11 count: 43.

ML – Mycoplasma Liquid Medium

Organism & Strain	Storage	Dilutions	Control		1 week		2 weeks		3 weeks		MES Control
			1	2	1	2	1	2	1	2	
<i>M. arginini</i> 69D	15/04/2016	log -2 & 3	2	2	2	2	2	2	2	2	34
<i>M. hyorhinae</i> 29052	26/09/2017	log -5 & 6	4	6	4	6	4	NC*	4	6	23
<i>M. hyopneumoniae</i> JF685	02/02/2015	log -4.5 & 5.5	7	9	7	9	7	8	7	7	120
<i>M. orale</i> T24.MM	27/09/2018	log -3.5 & 4.5	8	9	7	8	7	9	8	11	61
<i>M. pneumoniae</i> 5167	02/10/2017	log -4 & 5	10	10	10	10	9	12	10	11	34
<i>M. synoviae</i> 263	14/12/2017	log -5 & 6	3	3	3	3	3	3	3	3	43
<i>A. laidlawii</i> 25C	29/01/2020	log -2 & 3	7	7	3	3	3	3	5	5	72
<i>M. gallisepticum</i> A70	27/08/2019	log -4 & 5	6	7	5	NC**	4	6	4	6	48

*Repeat *M. hyorhinae* week 2 on 26.03.2021. Tube 1-5. Tube 2 – 7. MES count 26 (lot 11A).

**Repeat *M. gallisepticum* week 1 on 31.03.2021. Tube 1- 5. Tube 2 - 6. MES count 13 (lot 12).

AL – Avian Liquid Medium

Organism & Strain	Storage	Dilutions		Control		1 week		2 weeks		3 weeks		MES Control
		1	2	1	2	1	2	1	2	1	2	
<i>M. meleagridis</i> 7672	26/01/2014	log -4 & 5		5	5	5	5	4	5	4	5	38
<i>M. iowae</i> M4/5T	13/08/2010	log -4 & 5		5	6	5	5	5	6	5	6	39
<i>M. synoviae</i> 263	14/12/2017	log -5 & 6		2	3	2	3	2	2	2	3	25
<i>M. gallisepticum</i> A70	27/08/2019	log -4 & 5		4	5	4	5	4	NC*	4	5	13

*Repeat *M. gallisepticum* week 2 on 14.04.21. Tube 1- 4, Tube 2-5. Same as control lot 07 APR.
Av solid control count – 9.

AS – Avian Solid Medium

Organism & Strain	Storage	Dilution				
			Control	1 week	2 weeks	3 weeks
<i>M. meleagridis</i> 7672	26/01/2014	log -4	38	20	23	27
<i>M. iowae</i> M4/5T	13/08/2010	log -4	39	38	42	65
<i>M. synoviae</i> 263	14/12/2017	log -5	25	42	26	35
<i>M. gallisepticum</i> A70	27/08/2019	log -4	13	29	23	27

Conclusion

There is no significant difference in the growth of the QC strain used at Mycoplasma Experience from week 1 to week 3 at ambient conditions on any of the media products tested. Where there are differences to the control, that is likely to be because the controls are a different batch of media used at the time of testing and may contain different constituent preparations.

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