

REPORT OF THE 45th INTERNATIONAL MICA EXCHANGE

MAY 3, 2023

MICA

193 - 198

For the 45th MICA Exchange, 6 DNA samples (MICA #193 - MICA#198) were shipped to 15 laboratories worldwide. MICA typing results were received

from all 15 laboratories. Results are summarized on Table 1 and individual laboratory results are listed on tables 2 - 7.

MICA #193. MICA*011-MICA*016 was the reported MICA genotype for this sample from a donor of Hispanic descent. MICA*011 and MICA*016 were each assigned by 100%, with 6 labs assigning MICA*011:01, 6 labs assigning MICA*016:01, and 1 lab assigning MICA*011:01:08 and MICA*016:01:01.

MICA #194. MICA*009-MICA*027 was the reported MICA genotype for this sample from a donor of Hispanic descent. MICA*009 was assigned by 12 labs, with 8 labs assigning MICA*009:02 and 1 lab assigning MICA*009:02:01. Two labs were unable to resolve MICA*009 from MICA*049. MICA*049 and MICA*009 differ by a single nucleotide substitution in exon 6 at codon 333, where MICA*049 has methionine (ATG) and MICA*009 has threonine (ACG).

MICA*027 was assigned by 12 labs, with 5 labs assigning MICA*027:01, 1 lab assigning MICA*027:02, and 1 lab assigning MICA*027:01:02. Three labs were unable to resolve MICA*027 from MICA*048. MICA*048 differs from MICA*027 in exon 5 by a single nucleotide substitution at codon 316 (GAG → GAT), resulting in an amino acid change from glutamic acid to aspartic acid in MICA*048.

MICA #195. MICA*002-MICA*049 was the reported MICA genotype for this sample from a donor of Asian descent. MICA*002 was assigned by 10 labs, with 7 labs assigning MICA*002:01 and 1 lab assigning MICA*002:01:03. A number of labs (n = 4) were unable to resolve MICA*002 from MICA*020, MICA*055, and several other MICA alleles. MICA*002 (A9), MICA*020 (A10), and MICA*055 (A8) are identical except for the number of GCT repeats in

their transmembrane domains (exon 5).

MICA*049 was assigned by 11 labs, with 6 labs assigning MICA*049:01, and 1 lab assigning MICA*049:01:01. Four other labs were unable to resolve MICA*049 from MICA*009.

MICA #196. MICA*009-MICA*019 was the reported MICA genotype for this sample from a donor of Asian descent. MICA*009 was assigned by 12 labs, with 8 labs assigning MICA*009:01. Three labs were unable to resolve MICA*009 from MICA*049.

MICA*019 was assigned in complete consensus as the second MICA allele, with 9 labs assigning MICA*019:01.

MICA #197. This sample from an Asian donor was reported as homozygous for MICA*019. MICA*019 was assigned in complete consensus, with 9 labs assigning MICA*019:01.

MICA #198. MICA*011-MICA*017 was the reported MICA genotype for this sample from a donor of mixed heritage. MICA*011 was reported by 100%, with 6 labs assigning MICA*011:01, 1 lab assigning MICA*011:01/*011:01Q, and 1 lab assigning MICA*011:01:01.

MICA*017 was assigned by 13 labs, with 8 labs assigning MICA*017:01. Two labs were unable to resolve MICA*017 from MICA*095. MICA*017:01 is identical to MICA*095 except for the number of GCT repeats in its transmembrane domain (exon 5). MICA*017:01 has 9 GCT repeats where as MICA*095 has 6 GCT repeats.



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Arlene Locke, David Gjertson, Qiuhe Zhang, and Elaine F. Reed



Table 1. Summary of 45th MICA Exchange #193 - #198

MICA#193	
15 labs	
Allele-1	%(n)
*011:01:08	7 (1)
*011:01	40(6)
*011	46(7)
*011:01/*011:01Q	7 (1)
15 labs	
Allele-2	%(n)
*016:01:01	7 (1)
*016:01	40(6)
*016	53(8)

MICA#194	
15 labs	
Allele - 1	%(n)
*009:02:01	7 (1)
*009:02	53(8)
*009	20(3)
*009/049	7 (1)
*009/*049/*109/*116/*136	7 (1)
*076	6 (1)
15 labs	
Allele - 2	%(n)
*027:01:02	7 (1)
*027:01	33(5)
*027:02	7 (1)
*027	33(5)
*027:01/*048	7 (1)
*027/*048	7 (1)
*008/*027/*048/*087/*102/*103/*104	6 (1)

MICA#195	
15 labs	
Allele - 1	%(n)
*002:01:03	7 (1)
*002:01	46(7)
*002	13(2)
*002:01/*002:02/*002:08/*110	7 (1)
*002/*020/*055	7 (1)
*002/*020/*023/*052/*055/*089/*090	7 (1)
*002/*020/*055/*089/*090/*091/*092	13(2)
15 labs	
Allele - 2	%(n)
*049:01:01	7 (1)
*049:01	40(6)
*049	26(4)
*009:01/*049:01	7 (1)
*009/*049	13(2)
*009/*049/*109/*116	7 (1)

MICA#196	
15 labs	
Allele-1	%(n)
*009:01	53(8)
*009	26(4)
*009:01/*049:01	7 (1)
*009/*049	7 (1)
*009/*049/*109/*116	7 (1)
15 labs	
Allele-2	%(n)
*019:01	60(9)
*019	40(6)

MICA#197	
15 labs	
Allele - 1	%(n)
*019:01	60(9)
*019	40(6)

MICA#198	
15 labs	
Allele - 1	%(n)
*011:01:01	7 (1)
*011:01	40(6)
*011:01/*011:01Q	7 (1)
*011	46(7)
15 labs	
Allele - 2	%(n)
*017:01	53(8)
*017	33(5)
*017/*095	7 (1)
*017/*095/*183	7 (1)

Table 2. MICA typing results reported by participating laboratories

MICA # 193 (Hispanic)	CTR	Allele-1	Allele-2	Others	Method
	733	*011:01	*016		SBT
	762	*011:01	*016:01		NGS
	3753	*011	*016		SSO
	3798	*011	*016		NGS
	3966	*011	*016		SSP
	4337	*011	*016		SSP
	4345	*011	*016		SBT
	5133	*011:01	*016:01		NGS
	8022	*011:01	*016:01		NGS
	8035	*011:01	*016:01		NGS
	8047	*011:01/*011:01Q	*016:01		NGS
	8073	*011:01:08	*016:01:01		NGS
	8086	*011	*016		SBT
	8105	*011:01	*016:01		NGS
	8110	*011	*016		SSO

Table 3. MICA typing results reported by participating laboratories					
MICA # 194 (Hispanic)	CTR	Allele-1	Allele-2	Others	Method
	733	*076	*027:02		SBT
	762	*009:02	*027:01		NGS
	3753	*009/049	*027/*048		SSO
	3798	*009	*027		NGS
	3966	*009	*027		SSP
	4337	*009:02	*027		SSP
	4345	*009/*049/*109/*116/*136	*008/*027/*048/*087/*102/*103/*104		SBT
	5133	*009:02	*027:01		NGS
	8022	*009:02	*027:01		NGS
	8035	*009:02	*027:01		NGS
	8047	*009:02	*027:01/*048		NGS
	8073	*009:02:01	*027:01:02		NGS
	8086	*009:02	*027		SBT
	8105	*009:02	*027:01		NGS
	8110	*009	*027	*048	SSO

Table 4. MICA typing results reported by participating laboratories					
MICA # 195 (Asian)	CTR	Allele-1	Allele-2	Others	Method
	733	*002:01	*049:01		SBT
	762	*002:01	*049:01		NGS
	3753	*002/*020/*055/*089/*090/*091/*092	*009/*049	*093	SSO
	3798	*002	*049		NGS
	3966	*002	*049		SSP
	4337	*002/*020/*055	*049		SSP
	4345	*002/*020/*023/*052/*055/*089/*090	*009/*049/*109/*116		SBT
	5133	*002:01	*049:01		NGS
	8022	*002:01	*049:01		NGS
	8035	*002:01	*049:01		NGS
	8047	*002:01/*002:02/*002:08/*110	*009:01/*049:01		NGS
	8073	*002:01:03	*049:01:01		NGS
	8086	*002:01	*049		SBT
	8105	*002:01	*049:01		NGS
	8110	*002/*020/*055/*089/*090/*091/*092	*009/*049	*093	SSO

Table 5. MICA typing results reported by participating laboratories					
MICA # 196 (Asian)	CTR	Allele-1	Allele-2	Others	Method
	733	*009:01	*019:01		SBT
	762	*009:01	*019:01		NGS
	3753	*009/*049	*019		SSO
	3798	*009	*019		NGS
	3966	*009	*019		SSP
	4337	*009	*019		SSP
	4345	*009/*049/*109/*116	*019		SBT
	5133	*009:01	*019:01		NGS
	8022	*009:01	*019:01		NGS
	8035	*009:01	*019:01		NGS
	8047	*009:01/*049:01	*019:01		NGS
	8073	*009:01	*019:01		NGS
	8086	*009:01	*019:01		SBT
	8105	*009:01	*019:01		NGS
	8110	*009	*019	*049	SSO

Table 6. MICA typing results reported by participating laboratories

MICA # 197 (Asian)	CTR	Allele-1	Allele-2	Others	Method
	733	*019:01			SBT
	762	*019:01			NGS
	3753	*019	*019		SSO
	3798	*019	*019		NGS
	3966	*019	*019		SSP
	4337	*019	*019		SSP
	4345	*019	*019		SBT
	5133	*019:01			NGS
	8022	*019:01	*019:01		NGS
	8035	*019:01	-		NGS
	8047	*019:01	*019:01		NGS
	8073	*019:01	*019:01		NGS
	8086	*019:01	*019:01		SBT
	8105	*019:01	*019:01		NGS
	8110	*019	*019		SSO

Table 7. MICA typing results reported by participating laboratories

MICA # 198 (Mixed)	CTR	Allele-1	Allele-2	Others	Method
	733	*011:01	*017:01		SBT
	762	*011:01	*017:01		NGS
	3753	*011	*017/*095		SSO
	3798	*011	*017		NGS
	3966	*011	*017		SSP
	4337	*011	*017		SSP
	4345	*011	*017/*095/*183		SBT
	5133	*011:01	*017:01		NGS
	8022	*011:01	*017:01		NGS
	8035	*011:01	*017:01		NGS
	8047	*011:01/*011:01Q	*017:01		NGS
	8073	*011:01:01	*017:01		NGS
	8086	*011	*017		SBT
	8105	*011:01	*017:01		NGS
	8110	*011	*017	*095	SSO