REPORT OF THE 48th INTERNATIONAL MICA EXCHANGE
OCTOBER 28, 2024

MICA 211 - 216

For the 48th MICA Exchange, 6 DNA samples (MICA #211 - MICA#216) were shipped to 18 laboratories worldwide. MICA typing results were received from all 18 laboratories. Results are summarized on Table 1 and individual laboratory results are listed on tables 2 - 7.

MICA #211. MICA*008-MICA*016 was the reported MICA genotype for this donor of unknown ethnicity. MICA*008 (A5.1) was assigned by 14 labs, with 9 labs assigning MICA*008:04 and 1 lab assigning MICA*008:04:01.

The second allele was MICA*016 (A5). It was assigned by 17 labs, with 8 labs assigning MICA*016:01 and 1 lab assigning MICA*016:01:01.

MICA #212. MICA*004-MICA*027 was the reported MICA genotype for this sample from a Caucasian donor. MICA*004 (A6) was reported by 17 labs, with 8 labs reporting MICA*004:01 and 2 labs reporting MICA*004:01:01. One lab was unable to resolve MICA*004 from MICA*149 and MICA*182.

MICA*027 (A5) was reported as the second MICA allele, with 7 labs assigning MICA*027:01 and 2 labs assigning MICA*027:01:01. Three labs were unable to resolve MICA*027:01 from MICA*048. MICA*027:01 differs from MICA*048 in exon 5 by a single nucleotide substitution at codon 316 (GAT → GAG), resulting in an amino acid substitution from aspartic acid to glutamic acid in MICA*027:01.

MICA #213. MICA*009 and MICA*017 was the reported MICA genotype for this sample from a Hispanic donor. MICA*009 (A6) was assigned by 16 labs, with 12 labs assigning MICA*009:02. One lab, noted a new MICA*009:02 allele was present. The remaining 2 labs were unable to resolve MICA*009 from MICA*049. MICA*009 differs from MICA*049 in exon 6 by a single nucleotide substitution (ATG → ACG) at codon 333, in which methionine is replaced by threonine in MICA*009.

MICA*017 (A9) was reported as the second MICA allele, with 10 labs reporting MICA*017:01 and 6 labs reporting MICA*017. Two labs were unable to resolve MICA*017 from MICA*095. MICA*017 differs from MICA*095 by the number of GCT repeats in exon 5, where MICA*017 has 9 GCT repeats and MICA*095 has 6 GCT repeats.

MICA #214. MICA*015 and MICA*019 was the reported MICA genotype for this sample from a donor of African American descent. MICA*015 (A9) was assigned in complete consensus, with 10 labs assigning MICA*015:01.

MICA*019 (A5) was also assigned in complete consensus, with 11 labs assigning MICA*019:01. One lab reporting by NGS noted a new MICA*019:01 allele was likely present.

MICA #215 MICA*010-MICA*012 was the reported MICA genotype for this sample from a donor of Asian descent. MICA*010 (A5) was assigned by 13 labs, with 9 labs assigning MICA*010:01. One lab noted a new MICA*010:01 allele was likely present. The 4 remaining labs were unable to resolve MICA*010 from MICA*069. MICA*010 differs from MICA*069 in exon 6 by a single nucleotide substitution (GAT → GCT) at codon 351, where aspartic acid is replaced by alanine in MICA*010.

MICA*012 (A4) was reported in complete consensus as the second allele, with 10 labs reporting MICA*012:01. One lab indicated a new MICA*012:01 allele was likely present.

MICA #216. MICA*004-MICA*045 was the reported MICA genotype for this sample from a donor of African American descent. MICA*004 (A6) was reported by 16 labs, with 9 labs reporting MICA*004:01.

The second allele, MICA*045 (A4), was also reported by 16 labs, with 9 labs reporting MICA*045:01.

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Table 1. Summary of 48th MICA Exchange #211 - #216

MICA#211	
18 labs	
Allele-1	**%(n)**
*008:04:01	5.5(1)
*008:04	50(9)
*008	17(3)
*008:01/*008:03/*008:04	5.5(1)
*008/*088N/*096N	11(2)
*008/*027/*048/*087/*102/*103/*104	5.5(1)
004:01:09	5.5(1)
18 labs	
Allele-2	**%(n)**
*016:01:01	5.5(1)
*016:01	44(8)
*016	44(8)
045:01:01	5.5(1)

MICA#212	
18 labs	
Allele - 1	**%(n)**
*004:01:01	11(2)
*004:01	44(8)
*004	39(7)
*004/*149/*182	6 (1)
18 labs	
Allele - 2	**%(n)**
*027:01:01	11(2)
*027:01	39(7)
*027	28(5)
*027:01/*048	5.5(1)
*027:01/*048	11(2)
*008/*027/*048/*087/*102/*103/*104	5.5(1)

MICA#213	
18 labs	
Allele - 1	**%(n)**
*009:02	67(12)
*009:02:NEW	6 (1)
*009	16(3)
*009/*049	11(2)
18 labs	
Allele - 2	**%(n)**
*017:01	56(10)
*017	33(6)
*017/*095	11(2)

MICA#214	
18 labs	
Allele-1	**%(n)**
*015:01	56(10)
*015	44(8)
18 labs	
*019:01	61(11)
*019:01:NEW	6 (1)
*019	33(6)

MICA#215	
17 labs	
Allele - 1	**%(n)**
*010:01	52(9)
*010:01:NEW	6 (1)
*010	18(3)
*010/*069	18(3)
*010:01/*065/*069	6 (1)
17 labs	
*012:01	59(10)
*012:01:NEW	6 (1)
*012:01/*012:04	6 (1)
*012	29(5)

MICA#216	
18 labs	
Allele - 1	**%(n)**
*004:01	50(9)
*004	39(7)
*004/*149/*182	5.5 (1)
008:04:01	5.5 (1)
18 labs	
*045:01	50(9)
*045	39(7)
*007/*026/*045	5.5 (1)
016:01:01	5.5 (1)

Table 2. MICA typing results reported by participating laboratories					
MICA # 211 (Unknown)	CTR	Allele-1	Allele-2	Others	Method
	733	*008:04	*016:01		SBT
	762	*008:04	*016:01		NGS
	3753	*008/*088N/*096N	*016		SSO
	3798	*008	*016		NGS
	3966	*008	*016		SSP
	4337	*008	*016		SSP
	4345	*008/*027/*048/*087/*102/*103/*104	*016		SBT
	5133	*008:04	*016:01		NGS
	5142	*004:01:09	*045:01:01		NGS
	8022	*008:04	*016:01		NGS
	8035	*008:04	*016:01		NGS
	8047	*008:01/*008:03/*008:04	*016:01		NGS
	8073	*008:04:01	*016:01:01		NGS
	8086	*008:04	*016		SBT
	8105	*008:04	*016:01		NGS
	8110	*008/*088N/*096N	*016		
	8135	*008:04	*016:01		NGS
	8137	*008:04	*016		SBT

Table 3. MICA typing results reported by participating laboratories					
MICA # 212 (Caucasian)	CTR	Allele-1	Allele-2	Others	Method
	733	*004:01	*027:01		SBT
	762	*004:01	*027:01		NGS
	3753	*004	*027/*048		SSO
	3798	*004	*027		NGS
	3966	*004	*027	*048	SSP
	4337	*004	*027		SSP
	4345	*004/*149/*182	*008/*027/*048/*087/*102/*103/*104		SBT
	5133	*004:01	*027:01		NGS
	5142	*004:01:01	*027:01:01		NGS
	8022	*004:01	*027:01		NGS
	8035	*004:01	*027:01		NGS
	8047	*004:01	*027:01/*048		NGS
	8073	*004:01:01	*027:01:01		NGS
	8086	*004	*027		SBT
	8105	*004:01	*027:01		NGS
	8110	*004	*027/*048		
	8135	*004:01	*027:01		NGS
	8137	*004	*027		SBT

Table 4. MICA typing results reported by participating laboratories					
MICA # 213 (Hispanic)	CTR	Allele-1	Allele-2	Others	Method
	733	*009:02	*017:01		SBT
	762	*009:02	*017:01		NGS
	3753	*009/049	*017/*095		SSO
	3798	*009	*017		NGS
	3966	*009	*017		SSP
	4337	*009:02	*017		SSP
	4345	*009	*017		SBT
	5133	*009:02	*017:01		NGS
	5142	*009:02:NEW	*017:01		NGS
	8022	*009:02	*017:01		NGS
	8035	*009:02	*017:01		NGS
	8047	*009:02	*017:01		NGS
	8073	*009:02	*017:01		NGS
	8086	*009:02	*017		SBT
	8105	*009:02	*017:01		NGS
	8110	*009/049	*017/*095		
	8135	*009:02	*017:01		NGS
	8137	*009:02	*017		SBT

Table 5. MICA typing results reported by participating laboratories					
MICA # 214 (Black)	CTR	Allele-1	Allele-2	Others	Method
	733	*015:01	*019:01		SBT
	762	*015:01	*019:01		NGS
	3753	*015	*019		SSO
	3798	*015	*019		NGS
	3966	*015	*019		SSP
	4337	*015	*019		SSP
	4345	*015	*019		SBT
	5133	*015:01	*019:01		NGS
	5142	*015:01	*019:01:NEW		NGS
	8022	*015:01	*019:01		NGS
	8035	*015:01	*019:01		NGS
	8047	*015:01	*019:01		NGS
	8073	*015:01	*019:01		NGS
	8086	*015	*019:01		SBT
	8105	*015:01	*019:01		NGS
	8110	*015	*019		
	8135	*015:01	*019:01		NGS
	8137	*015	*019:01		SBT

Table 6. MICA typing results reported by participating laboratories					
MICA # 215 (Asian)	CTR	Allele-1	Allele-2	Others	Method
	733	*010:01	*012:01		SBT
	762	*010:01	*012:01		NGS
	3753	*010/*069	*012		SSO
	3798	*010	*012		NGS
	3966	*010	*012		SSP
	4337	*010	*012:01		SSP
	4345	*010/*069	*012		SBT
	5133	*010:01	*012:01		NGS
	5142	*010:01:NEW	*012:01:NEW		NGS
	8022	*010:01	*012:01		NGS
	8035	*010:01	*012:01		NGS
	8047	*010:01/*065/*069	*012:01/*012:04		NGS
	8073	*010:01	*012:01		NGS
	8086	NT		substandard quality	SBT
	8105	*010:01	*012:01		NGS
	8110	*010/*069	*012		
	8135	*010:01	*012:01		NGS
	8137	*010:01	*012:01		SBT

Table 7. MICA typing results reported by participating laboratories					
MICA # 216 (Black)	CTR	Allele-1	Allele-2	Others	Method
	733	*004:01	*045:01		SBT
	762	*004:01	*045:01		NGS
	3753	*004	*007/*026/*045		SSO
	3798	*004	*045		NGS
	3966	*004	*045		SSP
	4337	*004	*045		SSP
	4345	*004/*149/*182	*045		SBT
	5133	*004:01	*045:01		NGS
	5142	*008:04:01	*016:01:01		NGS
	8022	*004:01	*045:01		NGS
	8035	*004:01	*045:01		NGS
	8047	*004:01	*045:01		NGS
	8073	*004:01	*045:01		NGS
	8086	*004	*045		SBT
	8105	*004:01	*045:01		NGS
	8110	*004	*045		
	8135	*004:01	*045:01		NGS
	8137	*004	*045		SBT