

REPORT OF THE 47th INTERNATIONAL MICA EXCHANGE

MAY 8, 2024

MICA

205 - 210

For the 47th MICA Exchange, 6 DNA samples (MICA #205 - MICA#210) were shipped to 17 laboratories worldwide. MICA typing results were received

from all 17 laboratories. Results are summarized on Table 1 and individual laboratory results are listed on tables 2 - 7.

MICA #205. MICA*002-MICA*250/*018 was the reported MICA genotype for this sample from a Filipino donor. MICA*002 was assigned by 9 labs, with 7 labs assigning MICA*002:01. The remainder of the labs (n = 5) were unable to resolve MICA*002 from among other alleles. One lab noted a possible new allele was present.

No consensus was achieved for the second MICA allele. MICA*018 (*018:01) was assigned by 7 labs, while MICA*250 (*250:01) was assigned by 8 labs reporting by NGS. This DNA was previously examined as MICA sample #078 (2013) and #086 (2014). In each study, Fischer noted the presence of a new allele. This new allele, assigned in 2022 as MICA*250:01, differs from MICA*018 by a single nucleotide substitution in exon 5 at codon 279 (GTG → ATG), resulting in an amino acid change from valine to methionine.

MICA #206. MICA*008-MICA*068 was the reported MICA genotype for this sample from a Caucasian donor. MICA*008 was assigned by 14 labs, with 8 labs assigning MICA*008:01 and 2 labs assigning MICA*008:01:02. Two labs assigned MICA*008/*088N, and 1 lab was unable to resolve MICA*008 from MICA*027.

MICA*068 was assigned by 15 labs. There were 2 misassignments. One lab reported MICA*002 and 1 lab reported MICA*002/*020/*023/*052/*055.

MICA #207. MICA*041 was the reported MICA genotype for this sample from a Hispanic donor. MICA*041 was assigned in complete consensus as allele-1. For allele-2, however, 10 labs assigned MICA*041, 2 labs assigned MICA*002/*041, and 4 labs indicated a new allele was possibly present. This new allele was described as differing from MICA*041 by a single nucleotide substitution in exon 6 at codon 355.2 (GAT → GCT), which results in an amino acid change from aspartic acid to alanine. We would like to express our appreciation to centers 3798, 5133, 8022, and 8035 for sharing their findings.

MICA #208. MICA*008-MICA*018 was the reported MICA genotype for this sample from a donor of African American descent. MICA*008 was assigned by 14 labs. Among them, 7 labs assigned MICA*008:04 and 2 labs assigned MICA*008:04:05.

MICA*018 was reported by all 17 labs. Among them, 11 labs assigned MICA*018:01 and 1 lab assigned MICA*018:01:new.

MICA #209. MICA*010-MICA*011 was the reported MICA genotype for this sample from a Hispanic donor. MICA*010 was assigned by 11 labs, with 9 labs assigning MICA*010:01 and 1 lab assigning MICA*010:01:new. MICA*019 was misassigned by 2 labs, and 4 labs were unable to resolve MICA*010 from MICA*069. MICA*069 differs from MICA*010 by a single nucleotide substitution in exon 6 at codon 350 (GCT → GAT), which results in an amino acid change from alanine to aspartic acid in MICA*069.

MICA*011 was assigned in complete consensus as the second allele present. Among the 17 labs reporting, 8 labs assigned MICA*011:01 and 2 labs assigned MICA*011:01:01.

MICA #210. MICA*002-MICA*009 was the reported MICA genotype for this sample from a donor of African American descent. MICA*002 was assigned by 12 labs, with 9 labs assigning MICA*002:01 and 1 lab assigning MICA*002:01:new. The remainder of the labs were unable to resolve MICA*002 from among other alleles.

MICA*009 was assigned by 13 labs. Among them, 10 labs assigned MICA*009:01 and 1 lab assigned MICA*009:01:04. MICA*009/*049 was reported by 3 labs and 1 lab reported MICA*009:01/*049/*109/*116. MICA*049 differs from MICA*009 by a single nucleotide substitution in exon 6 at codon 333 (ACG → ATG), in which threonine is replaced by methionine in MICA*049.

NEXT MAILING DATE: July 31, 2024

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Table 1. Summary of 47th MICA Exchange #205 - #210

MICA#205	
15 labs	
Allele-1	%(n)
*002:01	46(7)
*002	13(2)
new	7 (1)
*002:01/*002:02/*002:08/*110	7 (1)
*002:01/*002:08/*020/*023/*052/*055	7 (1)
*002/*020/*055/*086/*089/*090/*091	20(3)
15 labs	
Allele-2	%(n)
*250:01:01	7 (1)
*250:01	40(6)
*250	7 (1)
*018:01	26(4)
*018	20(3)

MICA#206	
17 labs	
Allele - 1	%(n)
*008:01:02	12(2)
*008:01	47(8)
*008	18(3)
*008:01/*008:03/*008:04	6 (1)
*008:01/*008:04/*008:06/*027:01	6 (1)
*008/*088N	12(2)
17 labs	
Allele - 2	%(n)
*068:01:01	12(2)
*068:01	47(8)
*068	29(5)
*002	6 (1)
*002:01/*002:08/*020/*023/*052/*055	6 (1)

MICA#207	
16 labs	
Allele - 1	%(n)
*041:01	6 (1)
*041	81(15)
16 labs	
Allele - 2	%(n)
*041	75(10)
*002/*041	13(2)
*041:variant	6 (1)
new	19 (3)

MICA#208	
17 labs	
Allele-1	%(n)
*008:04:05	12(2)
*008:04	41(7)
*008:01	6 (1)
*008:01/*008:03/*008:04	6 (1)
*008	17(3)
*008/*088N	12(2)
*008:01/*008:04/*008:06/*027:01	6 (1)
17 labs	
*018:01	65(11)
*018	23(4)
*018:01:NEW	6 (1)
*018:01/018:02	6 (1)

MICA#209	
17 labs	
Allele - 1	%(n)
*010:01	52(9)
*010	12(2)
*010:01:NEW	6 (1)
*019	6 (1)
*010/*069	12(2)
*010:01/*065/*069	6 (1)
*010:01/*010:02/*010:03/*069	6 (1)
17 labs	
*011:01:01	12(2)
*011:01	47(8)
*011	35(6)
*011:01/*011:01Q	6 (1)

MICA#210	
17 labs	
Allele - 1	%(n)
*002:01	52(9)
*002	12(2)
*002:01:NEW	6 (1)
*002:01/*002:02/*002:08/*110	6 (1)
*002/*020/*055/*089/*090/*091	6 (1)
*002/*020/*055/*086/*089/*090/*091	6 (1)
*002/*020/*055/*089/*090/*091/*092	6 (1)
*002:01/*002:08/*020/*023/*052/*055	6 (1)
17 labs	
*009:01:04	6 (1)
*009:01	59(10)
*009	12(2)
*009:01/*049:01	6 (1)
*009/*049	12(2)
*009:01/*049:01/*049:02/*109/*116	6 (1)

Table 2. MICA typing results reported by participating laboratories

MICA #205 (Filipino)	CTR	Allele-1	Allele-2	Others	Method
	733	*002:01	*018:01	*052 (Allele-1 ambiguity)	SBT
	762	NT	NT		NGS
	3753	*002/*020/*055/*086/*089/*090/*091	*018	*092/*093	SSO
	3798	*002	*250		
	3966	*002	*018	*020	SSP
	4337	*002/*020/*055/*086/*089/*090/*091	*018:01		SSP
	4345	*002:01/*002:08/*020/*023/*052/*055	*018:01		
	5133	*002:01	*250:01		NGS
	5142	NEW	*250:01:01		NGS
	8022	*002:01	*250:01		NGS
	8035	*002:01	*250:01		NGS
	8047	*002:01/*002:02/*002:08/*110	*250:01		NGS
	8073			No amplicon	NGS
	8086	*002:01	*018:01		SBT
	8105	*002:01	*250:01		NGS
	8110	*002/*020/*055/*086/*089/*090/*091	*018	*018, *092/*018, *093	
	8135	*002:01	*250:01		NGS

Table 3. MICA typing results reported by participating laboratories

MICA #206 (Caucasian)	CTR	Allele-1	Allele-2	Others	Method
	733	*008:01	*068:01		SBT
	762	*008:01	*068:01		NGS
	3753	*008/*088N	*068		SSO
	3798	*008	*068		
	3966	*008	*002	*020	SSP
	4337	*008	*068		SSP
	4345	*008:01/*008:04/*008:06/*027:01	*002:01/*002:08/*020/*023/*052/*055		
	5133	*008:01	*068:01		NGS
	5142	*008:01:02	*068:01:01		NGS
	8022	*008:01	*068:01		NGS
	8035	*008:01	*068:01		NGS
	8047	*008:01/*008:03/*008:04	*068:01		NGS
	8073	*008:01:02	*068:01:01		NGS
	8086	*008:01	*068		SBT
	8105	*008:01	*068:01		NGS
	8110	*008/*088N	*068		
	8135	*008:01	*068:01		NGS

Table 4. MICA typing results reported by participating laboratories

MICA #207 (Hispanic)	CTR	Allele-1	Allele-2	Others	Method
	733	*041			SBT
	762	NT	NT		NGS
	3753	*041	*002/*041		SSO
	3798	*041	NEW		
	3966	*041	*041		SSP
	4337	*041	*041		SSP
	4345	*041	*041		
	5133	*041	*041:variant		NGS
	5142	*041	*041		NGS
	8022	*041	NEW		NGS
	8035	*041:01	NEW		NGS
	8047	*041	*041		NGS
	8073	*041			NGS
	8086	*041	*041		SBT
	8105	*041	*041		NGS
	8110	*041	*002/*041		
	8135	*041	*041		NGS

Table 5. MICA typing results reported by participating laboratories

MICA #208 (Black)	CTR	Allele-1	Allele-2	Others	Method
	733	*008:01	*018:01		SBT
	762	*008:04	*018:01		NGS
	3753	*008/*088N	*018		SSO
	3798	*008	*018		
	3966	*008	*018		SSP
	4337	*008	*018:01		SSP
	4345	*008:01/*008:04/*008:06/*027:01	*018:01		
	5133	*008:04	*018:01		NGS
	5142	*008:04:05	*018:01:NEW		NGS
	8022	*008:04	*018:01		NGS
	8035	*008:04	*018:01		NGS
	8047	*008:01/*008:03/*008:04	*018:01/*018:02		NGS
	8073	*008:04:05	*018:01		NGS
	8086	*008:04	*018:01		SBT
	8105	*008:04	*018:01		NGS
	8110	*008/*088N	*018		
	8135	*008:04	*018:01		NGS

Table 6. MICA typing results reported by participating laboratories

MICA #209 (Hispanic)	CTR	Allele-1	Allele-2	Others	Method
	733	*010:01	*011:01		SBT
	762	*010:01	*011:01		NGS
	3753	*010/*069	*011		SSO
	3798	*010	*011		
	3966	*019	*011		SSP
	4337	*010	*011		SSP
	4345	*010:01/*010:02/*010:03/*069	*011:01		
	5133	*010:01	*011:01		NGS
	5142	*010:01:NEW	*011:01:01		NGS
	8022	*010:01	*011:01		NGS
	8035	*010:01	*011:01		NGS
	8047	*010:01/*065/*069	*011:01/*011:01Q		NGS
	8073	*010:01	*011:01:01		NGS
	8086	*010:01	*011		SBT
	8105	*010:01	*011:01		NGS
	8110	*010/*069	*011		
	8135	*010:01	*011:01		NGS

Table 7. MICA typing results reported by participating laboratories

MICA #210 (Black)	CTR	Allele-1	Allele-2	Others	Method
	733	*002:01	*009:01	*110(Allele-1), *049:0(Allele-2)	SBT
	762	*002:01	*009:01		NGS
	3753	*002/*020/*055/*089/*090/*091/	*009/*049	*092/*093	SSO
	3798	*002	*009		
	3966	*002	*009	*020	SSP
	4337	*002/*020/*055/*086/*089/*090/*091	*009:01		SSP
	4345	*002:01/*002:08/*020/*023/*052/*055	*009:01/*049:01/*049:02/*109/*116		
	5133	*002:01	*009:01		NGS
	5142	*002:01:NEW	*009:01:04		NGS
	8022	*002:01	*009:01		NGS
	8035	*002:01	*009:01		NGS
	8047	*002:01/*002:02/*002:08/*110	*009:01/*049:01		NGS
	8073	*002:01	*009:01		NGS
	8086	*002:01	*009:01		SBT
	8105	*002:01	*009:01		NGS
	8110	*002/*020/*055/*089/*090/*091/*092	*009/*049	*009, *093/*049, *093	
	8135	*002:01	*009:01		NGS