

REPORT OF THE 41st INTERNATIONAL MICA EXCHANGE

APRIL 6, 2021

MICA

169 - 174

For the 41st MICA Exchange, 6 DNA samples (MICA #169 - MICA#174) were shipped to 15 laboratories worldwide. MICA typing results were received

from 13 laboratories. Results are summarized on Table 1 and individual laboratory results are listed on tables 2 - 7.

MICA #169. MICA*004 and MICA*009 was the reported consensus type for this sample from an Asian donor. MICA*004 was reported in complete consensus, with 8 labs assigning MICA*004:01.

MICA*009 was assigned by 9 labs, with 7 labs reporting MICA*009:01. The remaining labs (n = 4) were unable to resolve MICA*009 from either MICA*049 or MICA*109. MICA*049 differs from MICA*009:01 in exon 6, by a single amino acid substitution at codon 333 (ACG → ATG), resulting in an amino acid substitution from threonine to methionine in MICA*049. Whereas MICA*109 differs from MICA*009:01 by the number GCT repeats in its transmembrane domain where MICA*009:01 has 6 GCT repeats and MICA*109 has 4 GCT repeats.

MICA #170. MICA*002 and MICA*018 was the reported consensus type for this sample from Black donor. MICA*002 was assigned by 10 labs, with 9 labs assigning MICA*002:01. Among the remaining 3 labs, 1 lab assigned MICA*002:01/*002:02/*110, 1 lab assigned MICA*002/*020/*055, and another assigned MICA**002/*020/*055/*086/*089/*090/*091.

The second MICA allele, MICA*018, was reported by all 13 labs. Of the 13 labs, 9 labs assigned MICA*018:01.

MICA #171. MICA*007 and MICA*072 was the reported consensus type for this sample from a Caucasian donor. MICA*007 was reported by 11 labs, with 8 labs assigning MICA*007:01. The second allele, MICA*072, was reported by 12 labs. Among them, half assigned MICA*072:01.

MICA #172. MICA*012 and MICA*019 was the reported consensus type for this sample from a Caucasian donor. Each were reported in complete consensus, with 9 labs assigning MICA*012:01 and 9 labs assigning MICA*019:01. One lab assigned MICA*012:01/*012:04. MICA*012:04 differs from MICA*012:01 in exon 4 by a single nucleotide substitution at codon 191 (AGC → AGT), resulting in a synonymous substitution.

MICA #173. MICA*008 and MICA*068 was the reported consensus type for this sample from a Caucasian donor. MICA*008 was reported by 11 labs, with 10 labs assigning MICA*008:01. One lab assigned MICA*008:01/*008:03/*008:04. MICA*008:03 differs from MICA*008:01 in exon 4 by a single nucleotide substitution as codon 193 (GCC → GCA), resulting in a synonymous substitution. MICA*008:04 differs from MICA*008:01 by a single nucleotide substitution (TTC → TTT) in the leader sequence, which also results in a synonymous substitution.

The second MICA allele, MICA*068, was reported by 11 labs. Among the 11 labs, 5 assigned MICA*068:01. One lab misassigned MICA*002:01.

MICA #174. MICA*011 and MICA*015 was the reported consensus type for this sample from a Hispanic donor. Each were reported by 100% of labs, with 7 labs assigning MICA*011:01 .

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Table 1. Summary of 41st MICA Exchange #169-#174

MICA#169	
13 labs	
Allele-1	%(n)
*004:01	62(8)
*004	38(5)
13 labs	
Allele-2	%(n)
*009:01	53(7)
*009	15(2)
*009:01/*049:01	8 (1)
*009:01/*109	8 (1)
*009/*049	8 (1)
*009/*109	8 (1)

MICA#170	
13 labs	
Allele - 1	%(n)
*002:01:01	8 (1)
*002:01	61(8)
*002	8 (1)
*002:01/*002:02/*110	8 (1)
*002/*020/*055	8 (1)
*002/*020/*055/*086/*089/*090/*091	8 (1)
13 labs	
Allele - 2	%(n)
*018:01	69(9)
*018	23(3)
*018:01/*018:02	8 (1)

MICA#171	
12 labs	
Allele - 1	%(n)
*007:01:01	8 (1)
*007:01	58(7)
*007	25(3)
*007/*026	8 (1)
12 labs	
Allele - 2	%(n)
*072:01	50(6)
*072	50(6)

MICA#172	
13 labs	
Allele-1	%(n)
*012:01	69(9)
*012	23(3)
*012:01/*012:04	8 (1)
13 labs	
Allele-2	%(n)
*019:01:01	8 (1)
*019:01	61(8)
*019	31(4)

MICA#173	
12 labs	
Allele - 1	%(n)
*008:01	58(7)
*008	25(3)
*008:01/*008:03/*008:04	8 (1)
*008/*088N	8 (1)
12 labs	
Allele - 2	%(n)
*068:01	42(5)
*068	50(6)
*002:01	8 (1)

MICA#174	
13 labs	
Allele - 1	%(n)
*011:01	54(7)
*011	46(6)
13 labs	
*015	100(13)

Table 2. MICA typing results reported by participating laboratories					
MICA # 169 (Asian)	CTR	Allele-1	Allele-2	Others	Method
	733	*004:01	*009:01	*049:01	SBT
	762	*004:01	*009:01		NGS
	3753	*004	*009/*049		SSO
	3798	*004	*009/*109		
	3966	*004	*009	*009/*049	SSO
	4337	*004	*009		SSP
	5133	*004:01	*009:01	*109	NGS
	8035	*004:01	*009:01/*109	*004:01+009:01/*004:01+*109	NGS
	8047	*004:01	*009:01/*049:01		NGS
	8073	*004:01	*009:01		NGS
	8080	*004:01	*009:01		NGS
	8086	*004	*009:01		
	8105	*004:01	*009:01		NGS

Table 3. MICA typing results reported by participating laboratories					
MICA # 170 (Black)	CTR	Allele-1	Allele-2	Others	Method
	733	*002:01	*018:01	*052	SBT
	762	*002:01	*018:01		NGS
	3753	*002/*020/*055/*086/*089/*090/*091	*018	*092/*093	SSO
	3798	*002	*018		
	3966	*002:01	*018:01	*002/*020/*055	SSO
	4337	*002/020/055	*018		SSP
	5133	*002:01	*018:01		NGS
	8035	*002:01	*018:01		NGS
	8047	*002:01/*002:02/*110	*018:01/*018:02		NGS
	8073	*002:01	*018:01		NGS
	8080	*002:01	*018:01		NGS
	8086	*002:01	*018:01		
	8105	*002:01:01	*018:01		NGS

Table 4. MICA typing results reported by participating laboratories					
MICA # 171 (Caucasian)	CTR	Allele-1	Allele-2	Others	Method
	733	*007:01	*072:01	*0026, *100	SBT
	762	*007:01	*072:01		NGS
	3753	*007/*026	*072		SSO
	3798	*007	*072		
	3966	*007	*072	*007/*026	SSO
	4337	*007	*072		SSP
	5133	*007:01	*072:01		NGS
	8035	QNS-unable to assign	QNS-unable to assign		NGS
	8047	*007:01	*072:01		NGS
	8073	*007:01	*072:01		NGS
	8080	*007:01	*072:01		NGS
	8086	*007:01	*072		
	8105	*007:01:01	*072		NGS

Table 5. MICA typing results reported by participating laboratories					
MICA # 172 (Caucasian)	CTR	Allele-1	Allele-2	Others	Method
	733	*012:01	*019:01		SBT
	762	*012:01	*019:01		NGS
	3753	*012	*019		SSO
	3798	*012	*019		
	3966	*012	*019		SSO
	4337	*012:01	*019		SSP
	5133	*012:01	*019:01		NGS
	8035	*012:01	*019:01		NGS
	8047	*012:01/*012:04	*019:01		NGS
	8073	*012:01	*019:01		NGS
	8080	*012:01	*019:01		NGS
	8086	*012:01	*019:01		
	8105	*012:01	*019:01:01		NGS

Table 6. MICA typing results reported by participating laboratories					
MICA # 173 (Caucasian)	CTR	Allele-1	Allele-2	Others	Method
	733	*008:01	*002:01	*053:01, *098:01	SBT
	762	*008:01	*068:01		NGS
	3753	*008/*088N	*068		SSO
	3798	*008	*068		
	3966	*008	*068		SSO
	4337	*008	*068		SSP
	5133	*008:01	*068:01		NGS
	8035	*008:01	*068:01		NGS
	8047	*008:01/*008:03/*008:04	*068:01		NGS
	8073	*008:01	*068:01		NGS
	8080	QNS			NGS
	8086	*008:01	*068		
	8105	*008:01	*068		NGS

Table 7. MICA typing results reported by participating laboratories					
MICA # 174 (Hispanic)	CTR	Allele-1	Allele-2	Others	Method
	733	*011:01	*015		SBT
	762	*011:01	*015		NGS
	3753	*011	*015		SSO
	3798	*011	*015		
	3966	*011	*015		SSO
	4337	*011	*015		SSP
	5133	*011:01	*015		NGS
	8035	*011:01	*015		NGS
	8047	*011:01	*015		NGS
	8073	*011:01	*015		NGS
	8080	*011:01	*015		NGS
	8086	*011	*015		
	8105	*011	*015		NGS