

# REPORT OF THE 42<sup>nd</sup> INTERNATIONAL MICA EXCHANGE

## OCTOBER 22, 2021

MICA

175 - 180

For the 42<sup>nd</sup> MICA Exchange, 6 DNA samples (MICA #175 - MICA#180) were shipped to 16 laboratories worldwide. MICA typing results were received

from 14 laboratories. Results are summarized on Table 1 and individual laboratory results are listed on tables 2 - 7.

**MICA #175.** MICA\*010 and MICA\*045 was the consensus type for this sample from a Chinese donor. This sample was previously examined as MICA sample #132 (2017).

In this present retyping, MICA\*010 was assigned by 11 labs, with 7 labs assigning MICA\*010:01. Two labs reported MICA\*010/\*069 and 1 lab assigned MICA\*010:01/\*065/\*069. MICA\*010 differs from MICA\*069 in exon 6 by a single nucleotide substitution at codon 350 (GAT → GCT), resulting in an amino acid substitution from aspartic acid to alanine in MICA\*010. MICA\*045 was well assigned by 14 labs, with 7 labs assigning MICA\*045:01.

**MICA #176.** MICA\*009 and MICA\*016 was the consensus type for this sample from a Hispanic donor. MICA\*009 was reported by 13 labs, with 9 labs reporting the subtype as MICA\*009:02. MICA\*009/\*049 was assigned by 1 lab. The second allele, MICA\*016, was reported in complete consensus.

**MICA #177.** This sample from a donor of mixed Caucasian and Hispanic heritage was previously examined as MICA sample #114 (2016). In this present retyping, MICA\*004 was reported in complete consensus, with 7 labs assigning MICA\*004:01.

The assignment of the second allele, remained unresolved. Eight labs assigned MICA\*101, 5 labs assigned MICA\*047, and 1 lab assigned MICA\*047/\*101. In 2016, 100% of labs (n = 17) assigned MICA\*047. MICA\*101 differs from MICA\*047 in exon 6, by a single nucleotide substitution at codon 321 (CTG → GTG), resulting in an amino acid change from leucine to valine in MICA\*101.

**MICA #178.** MICA\*001 and MICA\*011 was the consensus type for this sample from a Hispanic donor. This sample was previously examined as MICA sample #019 (2008). In this present retyping, MICA\*001 and MICA\*011 were each assigned by 100% of labs, with 7 labs assigning MICA\*011:01.

**MICA #179.** MICA\*008 and MICA\*027 was the reported consensus type for this sample from a Caucasian donor. MICA\*008 was reported by 13 labs, with 7 labs reporting the subtype as MICA\*008:04. One lab reported MICA\*008/\*088N/\*096N.

MICA\*027 was assigned by 11 labs, with 6 labs assigning MICA\*027:01. The remaining labs (n = 3) assigned MICA\*027/\*048. MICA\*027 differs from MICA\*048 in exon 5 by a single nucleotide substitution at codon 316 (GAT → GAG), which results in an amino acid change from aspartic acid to glutamic acid in MICA\*027.

**MICA #180.** MICA\*017 and MICA\*019 was the consensus type for this sample from a Caucasian donor. MICA\*017 was well assigned by 13 labs. One lab was unable to resolve MICA\*017 from MICA\*095. The second allele, MICA\*019, was reported in complete consensus, with 7 labs reporting MICA\*019:01 and 1 lab reporting MICA\*019:01:01 as the subtypes present.

**NEXT MAILING DATE: February 2, 2022**

*Arlene Locke, David Gjertson, Qiheng Zhang, and Elaine F. Reed*

**Table 1. Summary of 42<sup>nd</sup> MICA Exchange #175-#180**

<b>MICA#175</b>	
14 labs	
<b>Allele-1</b>	<b>%(n)</b>
*010:01	50(7)
*010	29(4)
*010/*069	14(2)
*010:01/*065/*069	7 (1)
14 labs	
<b>Allele-2</b>	<b>%(n)</b>
*045:01	50(7)
*045	50(7)

<b>MICA#176</b>	
14 labs	
<b>Allele - 1</b>	<b>%(n)</b>
*009:02	64(9)
*009	29(4)
*009/*049	7 (1)
14 labs	
<b>Allele - 2</b>	<b>%(n)</b>
*016	100(14)

<b>MICA#177</b>	
14 labs	
<b>Allele - 1</b>	<b>%(n)</b>
*004:01	50(7)
*004	50(7)
14 labs	
<b>Allele - 2</b>	<b>%(n)</b>
*101	57(8)
*047	36(5)
*047/*101	7 (1)

<b>MICA#178</b>	
14 labs	
<b>Allele-1</b>	<b>%(n)</b>
*001	100(14)
14 labs	
<b>Allele-2</b>	<b>%(n)</b>
*011:01	50(7)
*011	50(7)

<b>MICA#179</b>	
14 labs	
<b>Allele - 1</b>	<b>%(n)</b>
*008:04	50(7)
*008	36(5)
*008:01/*008:03/*008:04	7 (1)
*008/*088N/*096N	7 (1)
14 labs	
<b>Allele - 2</b>	<b>%(n)</b>
*027:01	43(6)
*027	36(5)
*027:01/*048	7 (1)
*027/*048	14(2)

<b>MICA#180</b>	
14 labs	
<b>Allele - 1</b>	<b>%(n)</b>
*017	93(13)
*017/*095	7 (1)
14 labs	
<b>Allele - 2</b>	<b>%(n)</b>
*019:01:01	7 (1)
*019:01	50(7)
*019	43(6)

<b>Table 2. MICA typing results reported by participating laboratories</b>					
<b>Sample # 175 (Chinese)</b>	<b>CTR</b>	<b>Allele-1</b>	<b>Allele-2</b>	<b>Others</b>	<b>Method</b>
	733	*010	*045		SBT
	762	*010:01	*045:01		
	3753	*010/*069	*045		SSO
	3798	*010	*045		NGS
	3966	*010	*045	*069	SSO
	4337	*010	*045		SSP
	4345	*010/*069	*045		
	5133	*010:01	*045:01		NGS
	8035	*010:01	*045:01		NGS
	8047	*010:01/*065/*069	*045:01		NGS
	8073	*010:01	*045:01		NGS
	8086	*010:01	*045		
	8105	*010:01	*045:01		NGS
	8114	*010:01	*045:01		

<b>Table 3. MICA typing results reported by participating laboratories</b>					
<b>Sample # 176 (Hispanic)</b>	<b>CTR</b>	<b>Allele-1</b>	<b>Allele-2</b>	<b>Others</b>	<b>Method</b>
	733	*009	*016		SBT
	762	*009:02	*016		
	3753	*009/*049	*016		SSO
	3798	*009	*016		NGS
	3966	*009	*016	*049	SSO
	4337	*009:02	*016		SSP
	4345	*009	*016		
	5133	*009:02	*016		NGS
	8035	*009:02	*016		NGS
	8047	*009:02	*016		NGS
	8073	*009:02	*016		NGS
	8086	*009:02	*016		
	8105	*009:02	*016		NGS
	8114	*009:02	*016		

<b>Table 4. MICA typing results reported by participating laboratories</b>					
<b>Sample # 177 (Caucasian/ Hispanic)</b>	<b>CTR</b>	<b>Allele-1</b>	<b>Allele-2</b>	<b>Others</b>	<b>Method</b>
	733	*004	*101		SBT
	762	*004:01	*101		
	3753	*004	*047		SSO
	3798	*004	*101		NGS
	3966	*004	*047		SSO
	4337	*004	*047		SSP
	4345	*004	*047		
	5133	*004:01	*101		NGS
	8035	*004:01	*101		NGS
	8047	*004:01	*047/*101		NGS
	8073	*004:01	*101		NGS
	8086	*004	*047		
	8105	*004:01	*101		NGS
	8114	*004:01	*101		

<b>Table 5. MICA typing results reported by participating laboratories</b>					
<b>Sample # 178 (Hispanic)</b>	<b>CTR</b>	<b>Allele-1</b>	<b>Allele-2</b>	<b>Others</b>	<b>Method</b>
	733	*001	*011		SBT
	762	*001	*011:01		
	3753	*001	*011		SSO
	3798	*001	*011		NGS
	3966	*001	*011		SSO
	4337	*001	*011		SSP
	4345	*001	*011		
	5133	*001	*011:01		NGS
	8035	*001	*011:01		NGS
	8047	*001	*011:01		NGS
	8073	*001	*011:01		NGS
	8086	*001	*011		
	8105	*001	*011:01		NGS
	8114	*001	*011:01		

**Table 6. MICA typing results reported by participating laboratories**

<b>Sample # 179 (Caucasian)</b>	<b>CTR</b>	<b>Allele-1</b>	<b>Allele-2</b>	<b>Others</b>	<b>Method</b>
	733	*008	*027		SBT
	762	*008:04	*027:01		
	3753	*008/*088N/*096N	*027/*048		SSO
	3798	*008	*027		NGS
	3966	*008	*027	*048	SSO
	4337	*008	*027		SSP
	4345	*008	*027/*048		
	5133	*008:04	*027:01		NGS
	8035	*008:04	*027:01		NGS
	8047	*008:01/*008:03/*008:04	*027:01/*048		NGS
	8073	*008:04	*027:01		NGS
	8086	*008:04	*027		
	8105	*008:04	*027:01		NGS
	8114	*008:04	*027:01		

<b>Table 7. MICA typing results reported by participating laboratories</b>					
<b>Sample # 180 (Caucasian)</b>	<b>CTR</b>	<b>Allele-1</b>	<b>Allele-2</b>	<b>Others</b>	<b>Method</b>
	733	*017	*019		SBT
	762	*017	*019:01		
	3753	*017/*095	*019		SSO
	3798	*017	*019		NGS
	3966	*017	*019		SSO
	4337	*017	*019		SSP
	4345	*017	*019		
	5133	*017	*019:01		NGS
	8035	*017	*019:01		NGS
	8047	*017	*019:01		NGS
	8073	*017	*019:01		NGS
	8086	*017	*019:01		
	8105	*017	*019:01:01		NGS
	8114	*017	*019:01		