

# REPORT OF THE 35<sup>th</sup> UCLA INTERNATIONAL MICA EXCHANGE

## JULY 16, 2018

MICA

137-140

For the 35<sup>th</sup> MICA Exchange, 4 DNA samples (MICA#137-MICA#140) were shipped to 22 laboratories worldwide. MICA typing results were re-

ceived from all 22 laboratories. Results for MICA Exchange 35 are summarized in Table 1 and individual laboratory results are shown in Tables 2-5.

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**MICA#137.** MICA\*002 and MICA\*008 was the reported consensus type for this sample from a Caucasian donor. MICA\*002 was assigned by 10 labs, with 5 labs assigning MICA\*002:01. The remainder of the labs (n=12) were unable to resolve MICA\*002 from MICA\*020 and MICA\*055. MICA\*020 and MICA\*055 are identical to MICA\*002 in their extracellular domains, but differ by the number of GCT repeats in their transmembrane domains (exon 5); MICA\*002 has 9 GCT repeats, MICA\*020 has 10 GCT repeats, and MICA\*055 has 8 GCT repeats.

MICA\*008 was reported by 100%, with 2 labs reporting MICA\*008:01 and 2 labs reporting MICA\*008:04. A number of labs (n = 6) assigned MICA\*008:03 and/or MICA\*008:04, along with MICA\*008:01. MICA\*008:03 differs from MICA\*008:01 in exon 4 by a single nucleotide substitution at codon 193 (GCC → GCA), resulting in a synonymous substitution. MICA\*008:04, on the other hand, differs from MICA\*008:01 by a single nucleotide substitution in exon 1 at codon -13 (TTC → TTT), also resulting in a synonymous substitution.

**MICA#138.** MICA\*009 and MICA\*017 was the reported consensus type for this sample from a Caucasian donor. MICA\*009 was reported by 10 labs, with 6 labs reporting MICA\*009:01. Twelve labs assigned MICA\*009/\*049. MICA\*049 differs from MICA\*009 in exon 6 by a single nucleotide substitution at codon 333 (ACG → ATG), resulting in an amino acid change from threonine to methionine. MICA\*017 was assigned in complete consensus.

**MICA#139.** MICA\*027 and MICA\*045 was the reported consensus type for this sample from an Asian donor. Ten labs assigned MICA\*027, 11 labs assigned MICA\*027/\*048, and 1 lab assigned MICA\*008/\*027/\*048. MICA\*048 differs from MICA\*027 in exon 5 by a single nucleotide substitution at codon 316 (GAG → GAT), which results in an amino acid change from glutamic acid to aspartic acid in MICA\*048. MICA\*045 was assigned by 100%.

**MICA#140.** MICA\*015 was reported in complete consensus as the sole MICA type for this sample from an African American donor. This sample was previously examined as MICA sample #111 in 2016.

**NEXT MAILING DATE: August 8, 2018**

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**Table 1. Summary of 35<sup>th</sup> MICA Exchange #137-#140**

<b>MICA#137</b>	
22 labs	
<b>Allele-1</b>	<b>%(n)</b>
*002:01	23(5)
*002	18(4)
*002:01/*002:02	5 (1)
*002:01/*020/*055	18(4)
*002/*020/*055	36(8)
22 labs	
<b>Allele-2</b>	<b>%(n)</b>
*008:04	9 (2)
*008:01:01	4 (1)
*008:01	4 (1)
*008	55(12)
*008:01/*008:04	18(4)
*008:01:01/*008:01:02/*008:03	4 (1)
*008:01:01/*008:01:02/*008:04	4 (1)

<b>MICA#138</b>	
22 labs	
<b>Allele - 1</b>	<b>%(n)</b>
*009:01	27(6)
*009	18(4)
*009:01/*049	27(6)
*009/*049	27(6)
22 labs	
<b>Allele - 2</b>	<b>%(n)</b>
*017	100(22)

<b>MICA#139</b>	
22 labs	
<b>Allele - 1</b>	<b>%(n)</b>
*027	45(10)
*027/*048	50(11)
*008:03/*027/*048	5 (1)
22 labs	
<b>Allele - 2</b>	<b>%(n)</b>
*045	100(22)

<b>MICA#140</b>	
22 labs	
<b>Allele - 1</b>	<b>%(n)</b>
*015	100(22)

**Table 2. MICA typing results reported by participating laboratories.**

<b>MICA #137 (Caucasian)</b>	<b>CTR</b>	<b>Allele-1</b>	<b>Allele-2</b>	<b>Others</b>	<b>Method</b>
	234	*002:01/*020/*055	*008:01/*008:04		SSO
	278	*002:01	*008:01		
	733	*002:01	*008:01:01	*008:01:02,*008:04	SBT
	735	*002	*008	*020/*055	SSO
	762	*002:01	*008:01/*008:04	*028/*035	SBT
	836	*002/*020/*055	*008		SSO
	1426	*002:01/*020/*055	*008:01:01/*008:01:02/*008:04		SSO
	2549	*002/*020/*055	*008:01/*008:04		SSO
	3224	*002:01/*020/*055	*008:AD		SSO
	3753	*002/*020/*055	*008		SSO
	3798	*002/*020/*055	*008		SSO
	3966	*002	*008	*020	SSO
	4337	*002/*020/*055	*008		SSP
	5000	*002/*020/*055	*008		SSO
	5231	*002/*020/*055	*008		SSO
	8030	*002	*008	*020/*055	SSO
	8035	*002/*020/*055	*008		SSO
	8047	*002:01/*002:02	*008:01:01/*008:01:02/*008:03	*008:04	NGS
	8080	*002:01/*020/*055	*008:01/*008:04		SSO
	8086	*002:01	*008:04		SBT
	8105	*002:01	*008:04		NGS
	8108	*002	*008	*020/*055	SSO

**Table 3. MICA typing results reported by participating laboratories.**

<b>MICA #138 (Caucasian)</b>	<b>CTR</b>	<b>Allele-1</b>	<b>Allele-2</b>	<b>Others</b>	<b>Method</b>
	234	*009:01/*049	*017		SSO
	278	*009:01	*017		
	733	*009:01	*017	*049	SBT
	735	*009	*017	*049	SSO
	762	*009:01	*017		SBT
	836	*009/*049	*017		SSO
	1426	*009:01/*049	*017		SSO
	2549	*009:01/*049	*017		SSO
	3224	*009:01/*049	*017		SSO
	3753	*009/*049	*017		SSO
	3798	*009/*049	*017		SSO
	3966	*009	*017	*049	SSO
	4337	*009	*017		SSP
	5000	*009/*049	*017		SSO
	5231	*009/*049	*017		SSO
	8030	*009	*017	*049	SSO
	8035	*009/*049	*017		SSO
	8047	*009:01/*049	*017		NGS
	8080	*009:01/*049	*017		SSO
	8086	*009:01	*017		SBT
	8105	*009:01	*017		NGS
	8108	*009	*017	*049	SSO

**Table 4. MICA typing results reported by participating laboratories.**

<b>MICA # 139 (Asian)</b>	<b>CTR</b>	<b>Allele-1</b>	<b>Allele-2</b>	<b>Others</b>	<b>Method</b>
	234	*027/*048	*045		SSO
	278	*027	*045		
	733	*027	*045		SBT
	735	*027	*045	*048	SSO
	762	*027	*045		SBT
	836	*027/*048	*045		SSO
	1426	*027/*048	*045		SSO
	2549	*027/*048	*045		SSO
	3224	*027/*048	*045		SSO
	3753	*027/*048	*045		SSO
	3798	*027/*048	*045		SSO
	3966	*027	*045	*048	SSO
	4337	*027	*045		SSP
	5000	*027/*048	*045		SSO
	5231	*027/*048	*045		SSO
	8030	*027	*045	*048	SSO
	8035	*027/*048	*045		SSO
	8047	*008:03/*027/*048	*045		NGS
	8080	*027/*048	*045		SSO
	8086	*027	*045		SBT
	8105	*027	*045		NGS
	8108	*027	*045	*048	SSO

**Table 5. MICA typing results reported by participating laboratories.**

MICA# 140 (Black)	CTR	Allele-1	Allele-2	Others	Method
	234	*015	*015		SSO
	278	*015	*015		
	733	*015			SBT
	735	*015	*015		SSO
	762	*015			SBT
	836	*015			SSO
	1426	*015	*015		SSO
	2549	*015	*015		SSO
	3224	*015			SSO
	3753	*015	*015		SSO
	3798	*015	*015		SSO
	3966	*015	*015		SSO
	4337	*015	*015		SSP
	5000	*015	*015		SSO
	5231	*015			SSO
	8030	*015			SSO
	8035	*015	-		SSO
	8047	*015	*015		NGS
	8080	*015	*015		SSO
	8086	*015	*015		SBT
	8105	*015			NGS
	8108	*015			SSO