REPORT OF THE 27th UCLA International MICA Exchange
OCTOBER 14, 2015

MICA 105–108

For the 27th MICA Exchange, 4 DNA samples (MICA#105 - MICA#108) were shipped to 17 laboratories worldwide. MICA typing results were received from all 17 laboratories and individual laboratory results are shown in Tables 1 - 4.

MICA#105. The reported MICA types for this sample from a Caucasian donor were MICA*002 ad MICA*019. MICA*019 well assigned by 88%. However, the assignment of the second MICA typed was not as well defined. MICA*002 was assigned by only 4 out of 17 labs (24%), with SBT assigning MICA*002:01. The remainder of the labs (n=13), were unable to resolve MICA*002 from MICA*020, MICA*055, MICA*068, and MICA*081. MICA*002, MICA*020, MICA*055, MICA*068, and MICA*081 are identical in their cellular domains, however, they differ in the number of GCT repeats in their transmembrane domains (exon 5), in which MICA*020 has 10 GCT repeats, MICA*055 has 8, and MICA*020, MICA*068, and MICA*081 each have 9 GCT repeats.

MICA#106. MICA*002 and MICA*027 were the assigned MICA types for this sample from a Hispanic donor. MICA*002 was assigned by 4 labs, with SBT reporting MICA*002:01. As with sample #105 in this same study, a number of labs (n=13) were unable to resolve MICA*002 from MICA*020, MICA*055, MICA*068, and MICA*081.

MICA*027 was assigned as the second MICA type by 6 labs. The remainder of the labs (n=11) were unable to resolve MICA*027 from MICA*048, MICA*080, and MICA*082. MICA*048 (A5) differs from MICA*027 (A5) in exon 5 by a single nucleotide substitution (GAG → GAT) at codon 316, where glutamic acid is replaced by aspartic acid in MICA*048. MICA*080 (A5.1) differs from MICA*027 in exon 4 by a single nucleotide substitution (ACT → ATT) at codon 269, resulting in an amino acid change from threonine to isoleucine. Finally, MICA*082 (A5.1) differs from MICA*027 in exon 3 by a single amino acid substitution (CGG → TGG) at codon 169, in which arginine is replaced by tryptophan in MICA*082.

MICA#107. This sample from a Hispanic donor was reported as homozygous for MICA*009. MICA*009 was assigned by 7 labs, with SBT and 1 SSP lab assigning MICA*009:01 and MICA*009:02. The remainder of the labs (n=10), were unable to resolve MICA*009 from MICA*049 and MICA*074. MICA*049 differs from MICA*049 in exon 6 by a single nucleotide substitution at codon 333 (ACG → ATG), where threonine is replaced by methionine in MICA*049. MICA*074, on the other hand, differs from MICA*009 in exon 3 by a single nucleotide substitution at codon 93 (ATT → ATG), resulting in an amino acid change from isoleucine to methionine.

MICA#108. The reported MICA types for this sample from an Asian donor were MICA*012 and MICA*027. MICA*012 was reported in complete consensus, with 5 labs (2 SBT and 3 SSO) reporting MICA*012:01. MICA*027 was reported as the second MICA type by 6 labs, while 11 labs were unable to resolve MICA*027 from among MICA*048, MICA*080, and MICA*082.

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Table 1: MICA typing results reported by participating laboratories.						
MICA#105 (Caucasian)	**CTR**	**Investigator**	**Allele-1**	**Allele-2**	**Others**	**Method**
	234	Amador, Alexandra	*002:AC/*019	*019/*020/*055/*068/*072/*075	AC:=01/03	SSO
	16	Askar, Medhat Z.	*002/*020/*055/*081	*019		
	3224	Chen, Dong-Feng	*002/*020/*055/*081	*019		SSO
	2549	Fagoaga, Omar	*002/*020/*055	*019		SSO
	762	Fischer, Gottfried	*002:01	*019		SBT
	4337	Kim, Tai-Gyu	*002:01/*002:03/*020/*055	*019		SSP
	836	KuKuruga, Debra	*002/*020/*055	*019		SSO
	278	Lee, Jar-How	*002:01/*002:03/*020/*055	*019		SSO
	759	Lopez-Cepero, Mayra	*002/*020	*019	*019, *055/*068/*072/*075	SSO
	733	Mytilineos, Joannis	*002:01	*019	*027, *072	SBT
	5231	Nelson, Karen	*002/*020/*055	*019		SSO
	3966	Permpikul, Vejbaesya &	*002/*020	*019		SSP
	8030	Poulton, Kay	*002	*019	*020, *055	SSO
	3753	Reed, Elaine F.	*002/*019	*019/*020/*055		SSO
	3798	Reinsmoen, Nancy L.	*002/*020/*055	*019		SSO
	2518	Tambur, Anat	*002	*019	*020/*055/*081	SSO
	1466	Yu, Neng	*002/*020/*055/*068	*019		SSO

Table 2: MICA typing results reported by participating laboratories.

MICA#106 (Hispanic)	CTR	Investigator	Allele-1	Allele-2	Others	Method
	234	Amador, Alexandra	*002:AC/*020/*027/*048	*027/*048/*055/*068/*072/*075	AC:=01/03	SSO
	16	Askar, Medhat Z.	*002/*020/*055/*081	*027/*048		
	3224	Chen, Dong-Feng	*002/*020/*055/*081	*027/*048		SSO
	2549	Fagoaga, Omar	*002/*020/*055	*027/*048/*080/*082		SSO
	762	Fischer, Gottfried	*002:01	*027		SBT
	4337	Kim, Tai-Gyu	*002:01/*002:03/*020/*055	*027		SSP
	836	KuKuruga, Debra	*002/*020/*055	*027/*048/*080/*082		SSO
	278	Lee, Jar-How	*002:01/*002:03/*020/*055	*027/*048/*080/*082		SSO
	759	Lopez-Cepero, Mayra	*002/*020	*027/*048	*027/*048, *055/*068/*072/*075	SSO
	733	Mytilineos, Joannis	*002:01	*027		SBT
	5231	Nelson, Karen	*002/*020/*055	*027/*048/*080/*082		SSO
	3966	Permpikul, Vejbaesya &	*002/*020	*027		SSP
	8030	Poulton, Kay	*002	*027	*048/*080/*082, *020/*055	SSO
	3753	Reed, Elaine F.	*002/*020/*027/*048	*027/*048/*055		SSO
	3798	Reinsmoen, Nancy L.	*002/*020/*055	*027/*048/*080/*082		SSO
	2518	Tambur, Anat	*002	*027	*020/*048/*055/*081	SSO
	1466	Yu, Neng	*002/*020/*055/*068	*008/*027/*048		SSO

Table 3: MICA typing results reported by participating laboratories.						
MICA#107 (Hispanic)	**CTR**	**Investigator**	**Allele-1**	**Allele-2**	**Others**	**Method**
	234	Amador, Alexandra	*009:01/*009:02	*009:02/*049/*074		SSO
	16	Askar, Medhat Z.	*009/*049			
	3224	Chen, Dong-Feng	*009/*049			SSO
	2549	Fagoaga, Omar	*009/*049	*009/*049		SSO
	762	Fischer, Gottfried	*009:01	*009:02		SBT
	4337	Kim, Tai-Gyu	*009:01	*009:02		SSP
	836	KuKuruga, Debra	*009/*049			SSO
	278	Lee, Jar-How	*009:01/*049			SSO
	759	Lopez-Cepero, Mayra	*009/*049/*074			SSO
	733	Mytilineos, Joannis	*009:01	*009:02	*049	SBT
	5231	Nelson, Karen	*009/*049			SSO
	3966	Permpikul, Vejbaesya &	*009	*009		SSP
	8030	Poulton, Kay	*009:01			SSO
	3753	Reed, Elaine F.	*009/*049	*009/*049		SSO
	3798	Reinsmoen, Nancy L.	*009/*049	*009/*049		SSO
	2518	Tambur, Anat	*009	*009		SSO
	1466	Yu, Neng	*009/*049	*009/*049		SSO

Table 4: MICA typing results reported by participating laboratories.						
MICA#108 (Asian)	**CTR**	**Investigator**	**Allele-1**	**Allele-2**	**Others**	**Method**
	234	Amador, Alexandra	*012:01	*027/*048		SSO
	16	Askar, Medhat Z.	*012	*027/*048		
	3224	Chen, Dong-Feng	*012	*027/*048		SSO
	2549	Fagoaga, Omar	*012	*027/*048/*080/*082		SSO
	762	Fischer, Gottfried	*012:01	*027		SBT
	4337	Kim, Tai-Gyu	*012	*027		SSP
	836	KuKuruga, Debra	*012	*027/*048/*080/*082		SSO
	278	Lee, Jar-How	*012:01	*027/*048/*080/*082		SSO
	759	Lopez-Cepero, Mayra	*012	*027/*048		SSO
	733	Mytilineos, Joannis	*012:01	*027		SBT
	5231	Nelson, Karen	*012	*027/*048/*080/*082		SSO
	3966	Permpikul, Vejbaesya &	*012	*027		SSP
	8030	Poulton, Kay	*012:01	*027	*048/*080/*082	SSO
	3753	Reed, Elaine F.	*012	*027/*048		SSO
	3798	Reinsmoen, Nancy L.	*012	*027/*048/*080/*082		SSO
	2518	Tambur, Anat	*012	*027	*048	SSO
	1466	Yu, Neng	*012	*008/*027/*048		SSO