

REPORT OF THE 23rd UCLA International MICA Exchange

AUGUST 6, 2014

MICA 89-92

For the 23rd MICA Exchange, 4 DNA samples (MICA#089-MICA#092) were shipped to 17 laboratories. MICA typing results were received from all 17 laboratories and individual laboratory results are shown in Tables 1 – 4.

Thank you for your continued participation in this important program.

MICA#089. MICA*007 and MICA*017 are the reported types for this Hispanic sample. This sample was previously typed as MICA sample #056 (2011). In this present retyping, MICA*007 was assigned by 4 laboratories, with SBT assigning MICA*007:01. A number of labs (n=13) were still unable to resolve MICA*007 from MICA*026. MICA*007 differs from MICA*026 in exon 5 by the number of GCT repeats. MICA*007 has 4 GCT repeats compared to 6 GCT repeats in MICA*026.

MICA*017 was assigned by 12 labs, with an additional 4 labs reporting MICA*017/*071. It is important to note that MICA*071 is not listed in the IMGT/HLA database as its sequence was found to be identical to that of MICA*017 (Mar 2013).

MICA#090. MICA*009/*049 and MICA*052 are the reported types for this Caucasian sample. This sample was previously typed as MICA sample #043 (2010). In this present retyping, MICA*052 was reported by 94%, compared to an assignment by only 18% in 2010.

The assignment of the second MICA allele still proved to be a challenge. In this present study, MICA*049 was assigned by 2 laboratories by SSP and 1 laboratory performing SBT. While MICA*009 was reported by 3 laboratories, 2 labs (1 SBT and 1 SSO) assigned MICA*009:01. The remaining 11 labs were unable to resolve MICA*009 from MICA*049. MICA*049 differs from MICA*009 in exon 6 at codon 333 of the cytoplasmic domain by a single nucleotide substi-

tution (ACG ->ATG), which results in an amino acid substitution from threonine to methionine.

MICA#091. MICA*002 and MICA*012 are the reported types for this Asian sample. This sample was previously typed as MICA sample #032 (2009). In this present retyping, MICA*012 was assigned in complete consensus, with 6 labs assigning MICA*012:01.

MICA*002 was assigned by 4 labs, with 2 laboratories assigning MICA*002:01. As in the 2009 typing, however, a number of labs (n=13) were still unable to resolve MICA*002 from among MICA*020, MICA*055, MICA*068, MICA*072, or MICA*075. MICA*002, MICA*020, MICA*055 and MICA*068 are identical in their extracellular domains, but differ in the number of GCT repeats in their transmembrane domains. MICA*002 and MICA*068 have 9 GCT repeats, MICA*020 has 10 GCT repeats, while MICA*055 has 8 GCT repeats. MICA*072 differs from MICA*002 in exon 3 at codon 175 (GGC -> AGC), where MICA*002 has a glycine and MICA*072 has a serine. MICA*075, in turn, differs from MICA*002 in exon 4 at codon 256 (AGG -> AAG), where arginine is replaced by alanine in MICA*075.

MICA#092. MICA*012 and MICA*045 were the reported types for this Pacific Islander sample. MICA*012 was reported in complete consensus, with 6 labs assigning MICA*012:01. MICA*045 was also assigned in complete consensus.

NEXT MAILING DATE: FEBRUARY 4, 2015

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Table 1: MICA typing results reported by participating laboratories.

MICA#089 (Hispanic)	CTR	Investigator	Allele-1	Allele-2	Others	Method
	234	Amador, Alexandra	*007/*026	*017		SSO
	16	Askar, Medhat Z.	*007/*026	*017		SSO
	2549	Fagoaga, Omar	*007:01/*026	*017		
	762	Fischer, Gottfried	*007:01	*017		SBT
	4337	Kim, Tai-Gyu	*007/*026	*017		SSP
	836	KuKuruga, Debra	*007/*026	*017		SSO
	278	Lee, Jar-How	*007:01/*007:05/*007:06/*026	*017/*071		SSO
	759	Lopez-Cepero, Mayra	*007/*026	*017/*071		SSO
	733	Mytilineos, Joannis	*007:01	*017		SBT
	5231	Nelson, Karen	*007/*026	*017		SSO
	3966	Permpikul, Vejbaesya &	*007:01/*026	*017		SSP
	8030	Poulton, Kay	*007:01/*007:05/*007:06	*002/*017	*026	
	3753	Reed, Elaine F.	*007/*026	*017/*071		
	3798	Reinsmoen, Nancy L.	*007/*026	*017		
	2518	Tambur, Anat	*007	*017	*026	SSO
	3775	Vidan-Jeras, Blanka	*007/*026	*017		SSO
	1466	Yu, Neng	*007/*026	*017/*071		SSO

Table 2: MICA typing results reported by participating laboratories.

MICA#090 (Caucasian)	CTR	Investigator	Allele-1	Allele-2	Others	Method
	234	Amador, Alexandra	*009:01/*049	*052		SSO
	16	Askar, Medhat Z.	*009/*049	*052		SSO
	2549	Fagoaga, Omar	*009:01/*049	*052		
	762	Fischer, Gottfried	*049	*052		SBT
	4337	Kim, Tai-Gyu	*049	*002:01/*002:03/*020/*055		SSP
	836	KuKuruga, Debra	*009/*049	*052		SSO
	278	Lee, Jar-How	*009:01/*049/*074	*052		SSO
	759	Lopez-Cepero, Mayra	*009/*049/*074	*052		SSO
	733	Mytilineos, Joannis	*009:01	*052	*049	SBT
	5231	Nelson, Karen	*009/*049	*052		SSO
	3966	Permpikul, Vejbaesya &	*049	*052		SSP
	8030	Poulton, Kay	*009:01	*052	*049/*074	
	3753	Reed, Elaine F.	*009/*049/*074	*052		
	3798	Reinsmoen, Nancy L.	*009/*049	*052		
	2518	Tambur, Anat	*009	*052	*049/*074	SSO
	3775	Vidan-Jeras, Blanka	*009/*049	*052	*009/*049	SSO
	1466	Yu, Neng	*009/*049	*052		SSO

Table 3: MICA typing results reported by participating laboratories.

MICA#091 (Asian)	CTR	Investigator	Allele-1	Allele-2	Others	Method
	234	Amador, Alexandra	*002/*020/*055/*068/*072/*075	*012:01		SSO
	16	Askar, Medhat Z.	*002/*020/*055	*012		SSO
	2549	Fagoaga, Omar	*002:01/*002:03/*020/*055	*012:01		
	762	Fischer, Gottfried	*002:01	*012:01		SBT
	4337	Kim, Tai-Gyu	*002:01/*002:03/*020/*055	*012		SSP
	836	KuKuruga, Debra	*002/*020/*055	*012		SSO
	278	Lee, Jar-How	*002:01/*002:03/*020/*055/*068/*072/*075	*012:01		SSO
	759	Lopez-Cepero, Mayra	*002/*020/*055/*068/*072/*075	*012		SSO
	733	Mytilineos, Joannis	*002:01	*012:01	*052	SBT
	5231	Nelson, Karen	*002/*020/*055	*012		SSO
	3966	Permpikul, Vejbaesya &	*002/*020	*012		SSP
	8030	Poulton, Kay	*002:01/*002:03	*012:01	*020/*055/*068/*072/*075	
	3753	Reed, Elaine F.	*002/*020/*055/*068/*072/*075	*012		
	3798	Reinsmoen, Nancy L.	*002/*020/*055	*012		
	2518	Tambur, Anat	*002	*012	*020/*055/*068/*072/*075	SSO
	3775	Vidan-Jeras, Blanka	*002/*055	*012		SSO
	1466	Yu, Neng	*002/*020/*055/*068	*012		SSO

Table 4: MICA typing results reported by participating laboratories.						
MICA#092	CTR	Investigator	Allele-1	Allele-2	Others	Method
(Pacific Islander)	234	Amador, Alexandra	*012:01	*045		SSO
	16	Askar, Medhat Z.	*012	*045		SSO
	2549	Fagoaga, Omar	*012:01	*045		
	762	Fischer, Gottfried	*012:01	*045		SBT
	4337	Kim, Tai-Gyu	*012	*045		SSP
	836	KuKuruga, Debra	*012	*045		SSO
	278	Lee, Jar-How	*012:01	*045		SSO
	759	Lopez-Cepero, Mayra	*012	*045		SSO
	733	Mytilineos, Joannis	*012:01	*045		SBT
	5231	Nelson, Karen	*012	*045		SSO
	3966	Permpikul, Vejbaesya &	*012	*045		SSP
	8030	Poulton, Kay	*012:01	*045		
	3753	Reed, Elaine F.	*012	*045		
	3798	Reinsmoen, Nancy L.	*012	*045		
	2518	Tambur, Anat	*012	*045		SSO
	3775	Vidan-Jeras, Blanka	*012	*045		SSO
1466	Yu, Neng	*012	*045		SSO	