REPORT OF THE 15th UCLA INTERNATIONAL MICA EXCHANGE
December 1, 2011

MICA   57-60

We thank all participating laboratories in the UCLA International MICA Exchange Program. Four DNA samples were shipped to 25 laboratories, and MICA typing results were received from 23 laboratories (Table 1). Sixteen laboratories used a reverse sequence-specific oligonucleotide (rSSO) hybridization method, 4 laboratories used sequence-specific primer (SSP) typing, and 3 laboratories used sequencing-based testing (SBT). The number of GCT-repeats in exon 5 was reported by 2 of the sequencing laboratories.

We encourage the participating laboratories to resolve any discrepancies so that the information can be shared to improve the reliability and resolution of MICA typing systems.

MICA#057 (Hispanic)

MICA*001 (A4) and MICA*011 (A6) are the consensus types for this sample. One laboratory reported MICA*001 and MICA*030. MICA*011 differs from MICA*030 by a single nucleotide substitution at codon 151 (exon 3), where adenine is replaced by guanine (ATG ->GTG) resulting in an amino acid change from methionine to valine.

MICA#058 (Black)

The consensus typing of the first allele is MICA*008:01 (A5.1). Five laboratories reported MICA*008:01/*008:04. MICA*008:04 differs from MICA*008:01 by a synonymous substitution in the leader sequence where cytosine is replaced by thymine (TTC ->TTT) in MICA*008:04.

MICA*004 was reported by rSSO and SSP. The 3 sequencing laboratories (Mayr and Fischer, Lacelle, Mytilineos) detected a new allele. Mytilineos noted that this new variant is most similar to MICA*004. Mayr and Fischer, along with Lacelle, observed that the variant differs from MICA*004 at position 370 (G -> A) resulting in an amino acid change from aspartic acid to asparagine (Asp -> Asn) at codon 101.

MICA#059 (Caucasian)

The consensus typing of the sample is MICA*010 (A5) and MICA*009/ *049. A total of 7 laboratories (3 SSP, 2 SBT, 2 rSSO) assigned MICA*009, including 4 laboratories reporting MICA*009:01.

MICA*009 is identical to MICA*049 except at position 332 (exon 6) in the transmembrane domain, where methionine is replaced by threonine.

MICA#060 (Asian)

MICA*008:01 (A5.1) and MICA*019 (A5) are the consensus types for this sample. As with MICA#058, a number of laboratories were unable to distinguish MICA*008:01 from MICA*008:04.

Table 1: MICA typing results reported by participating laboratories.							
MICA#057 (Hispanic)	**Ctr**	**Investigator**	**MICA* allele-1**	**MICA* allele-2**	**Others**	**Method**	
	16	Askar,Medhat	*001	*011		rSSO	The number of GCT-repeats (A4, A5, A6, A7, A9, A10) or five GCT-repeats with an additional G (A5.1) in exon 5 (trans-membrane region) are indicated in parenthesis (PNAS 1997, 94:1298-1303).
	234	Gomez,Carmen	*001	*011		rSSO	
	278	Lee,Jar-How	*001	*011		rSSO	
	733	Mytilineos,Joannis	*001	*011		SBT	
	735	Ramon,Daniel	*001	*011		rSSO	
	759	Lopez-Cepero,My	*001	*011		rSSO	
	762	Fischer&Mayr	*001	*011		SBT	
	791	Lacelle, Chantale	*001(A4)	*011(A6)		SBT	
	836	KuKuruga,Debra	*001	*011		rSSO	
	1466	Yu,Neng	*001	*011		rSSO	rSSO - Luminex-based reverse sequence-specific oligonucleotide hybridization method
	1647	Gautreaux,Micha	*001	*030		rSSO	
	2518	Tambur,Anat	*001	*011		rSSO	
	3224	Chen,Dong-Feng	*001	*011		rSSO	
	3625	Rees,Tracey	*001	*011		SSP	
	3753	Reed,Elaine F.	*001	*011		rSSO	
	3775	Vidan-Jeras,Blank	*001	*011		rSSO	SBT - sequencing-based testing
	3798	Reinsmoen,Nancy	*001	*011		rSSO	
	3966	Permpikul&Vejbae	*001	*011		SSP	
	4337	Kim,Tai-Gyu	*001	*011		SSP	SSP- sequence-specific priming typing
	5231	Nelson,Karen	*001	*011		rSSO	
	8030	Poulton,Kay V.	*001	*011		rSSO	
	8040	Gladman/Pellet/P	*001	*011		SSP	
	8053	Tyan,Dolly	*001	*011		rSSO	

Table 2: MICA typing results reported by participating laboratories.						
MICA#058 (Black)	Ctr	Investigator	MICA* allele-1	MICA* allele-2	Others	Method
	16	Askar,Medhat	*004	*008		rSSO
	234	Gomez,Carmen	*004	*008:01/*008:04		rSSO
	278	Lee,Jar-How	*004	*008		rSSO
	733	Mytilineos,Joannis	*new	*008:01	*008:04	SBT
	735	Ramon,Daniel	*004	*008		rSSO
	759	Lopez-Cepero,My	*004	*008:01/*008:04		rSSO
	762	Fischer&Mayr	*new(A6)	*008:01(A5.1)	*008:04	SBT
	791	Lacelle, Chantale	*new(A6)	*008:01/*008:04(A5.1)		SBT
	836	KuKuruga,Debra	*004	*008		rSSO
	1466	Yu,Neng	*004	*008		rSSO
	1647	Gautreaux,Micha	*004	*008:01	*008:04	rSSO
	2518	Tambur,Anat	*004	*008		rSSO
	3224	Chen,Dong-Feng	*004	*008		rSSO
	3625	Rees,Tracey	*004	*008		SSP
	3753	Reed,Elaine F.	*004	*008		rSSO
	3775	Vidan-Jeras,Blank	*004	*008		rSSO
	3798	Reinsmoen,Nancy	*004	*008:01/*008:04		rSSO
	3966	Permpikul&Vejbae	*004	*027		SSP
	4337	Kim,Tai-Gyu	*004	*008		SSP
	5231	Nelson,Karen	*004	*008		rSSO
	8030	Poulton,Kay V.	*004	*008:01/*008:04		rSSO
	8040	Gladman/Pellet/P	*004	*00801		SSP
	8053	Tyan,Dolly	*004	*008		rSSO

The number of GCT-repeats (A4, A5, A6, A7, A9, A10) or five GCT-repeats with an additional G (A5.1) in exon 5 (trans-membrane region) are indicated in parenthesis (PNAS 1997, 94:1298-1303).

rSSO - Luminex-based reverse sequence-specific oligonucleotide hybridization method

SBT - sequencing-based testing

SSP- sequence-specific priming typing

Table 3: MICA typing results reported by participating laboratories.							
MICA#059 (Caucasian)	**Ctr**	**Investigator**	**MICA* allele-1**	**MICA* allele-2**	**Others**	**Method**	
	16	Askar,Medhat	*009:01/*049	*010		rSSO	
	234	Gomez,Carmen	*009:01/*010	*010/*049		rSSO	
	278	Lee,Jar-How	*009/*049	*010		rSSO	
	733	Mytilineos,Joannis	*009:01	*010	*049	SBT	
	735	Ramon,Daniel	*009/*049	*010			
	759	Lopez-Cepero,My	*009/*049	*010		rSSO	
	762	Fischer&Mayr	*009:01	*010	*049	SBT	
	791	Lacelle, Chantale	*009:01/*049(A6)	*010(A5)		SBT	
	836	KuKuruga,Debra	*009/*049	*010		rSSO	
	1466	Yu,Neng	*009/*049	*010		rSSO	
	1647	Gautreaux,Micha	*009:01	*019	*049	rSSO	
	2518	Tambur,Anat	*009/*049	*010		rSSO	
	3224	Chen,Dong-Feng	*009/*049	*010		rSSO	
	3625	Rees,Tracey	*009	*010		SSP	
	3753	Reed,Elaine F.	*009/*049	*010		rSSO	
	3775	Vidan-Jeras,Blank	*009/*049	*010		rSSO	
	3798	Reinsmoen,Nancy	*009:01/*049	*010		rSSO	
	3966	Permpikul&Vejbae	*009	*010		SSP	
	4337	Kim,Tai-Gyu	*009	*010		SSP	
	5231	Nelson,Karen	*009/*049	*010		rSSO	
	8030	Poulton,Kay V.	*009:01	*010	*049	rSSO	
	8040	Gladman/Pellet,P	*00901/*00902	*010		SSP	
	8053	Tyan,Dolly	*009/*049	*010		rSSO	

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SBT - sequencing-based testing

SSP- sequence-specific priming typing

Table 4: MICA typing results reported by participating laboratories.						
MICA#060	**Ctr**	**Investigator**	**MICA* allele-1**	**MICA* allele-2**	**Others**	**Method**
(Asian)	16	Askar,Medhat	*008	*019		rSSO
	234	Gomez,Carmen	*008:01/*008:04	*019		rSSO
	278	Lee,Jar-How	*008	*019		rSSO
	733	Mytilineos,Joannis	*008:01	*019	*008:04	SBT
	735	Ramon,Daniel	*008	*019		
	759	Lopez-Cepero,My	*008:01/*008:04	*019		rSSO
	762	Fischer&Mayr	*008:01	*019	*008:04	SBT
	791	Lacelle, Chantale	*008:01/*008:04(A5.1)	*019(A5)		SBT
	836	KuKuruga,Debra	*008	*019		rSSO
	1466	Yu,Neng	*008	*019		rSSO
	1647	Gautreaux,Micha	*008:01	*019	*008:04	rSSO
	2518	Tambur,Anat	*008	*019		rSSO
	3224	Chen,Dong-Feng	*008	*019		rSSO
	3625	Rees,Tracey	NT			SSP
	3753	Reed,Elaine F.	*008	*019		rSSO
	3775	Vidan-Jeras,Blank	*008	*019		rSSO
	3798	Reinsmoen,Nancy	*008:01/*008:04	*019		rSSO
	3966	Permpikul&Vejbae	*008	*019		SSP
	4337	Kim,Tai-Gyu	*008	*019		SSP
	5231	Nelson,Karen	*008	*019		rSSO
	8030	Poulton,Kay V.	*008:01/*008:04	*019		rSSO
	8040	Gladman/Pellet/P	*00801	*019		SSP
	8053	Tyan,Dolly	*008	*019		rSSO

The number of GCT-repeats (A4, A5, A6, A7, A9, A10) or five GCT-repeats with an additional G (A5.1) in exon 5 (trans-membrane region) are indicated in parenthesis (PNAS 1997, 94:1298-1303).

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