

REPORT OF THE 16th UCLA INTERNATIONAL MICA EXCHANGE

May 2, 2012

MICA

61-64

We thank all participating laboratories in the UCLA International MICA Exchange Program. Four DNA samples were shipped to 23 laboratories, and MICA typing results were received from 22 laboratories (Table 1). Eighteen laboratories used a reverse sequence-specific oligonucleotide (rSSO) hybridization method, 3 laboratories used sequencing-based testing (SBT), and 2 laboratories used sequence-specific priming (SSP) typing. The number

of GCT-repeats in exon 5 was reported by one 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.

Thank you for your continued participation in this important program.

MICA#061 (Caucasian)

MICA*002:01 (A9) was reported by all 3 sequencing laboratories as well as by 1 rSSO laboratory. Over half of the laboratories (n=12) reported MICA*002/*020/*055. MICA*002, MICA*020 and MICA*055 are identical in their extra cellular domains, but differ in their transmembrane domain, where MICA*002 belongs to the A9 group, MICA*020 belongs to the A10 group, and MICA*055 belongs to the A8 group. Four of the rSSO laboratories reported MICA*002:01/*002:04. MICA*002:01 differs from MICA*002:04 at codon 139 with a synonymous substitution (GCC->GCA).

MICA*011 (A6) was reported in complete consensus as the second MICA allele.

MICA#062 (Black)

The consensus typing of the first allele is MICA*008 (A5.1). This sample was previously typed as MICA#038 in 2010. The results of both studies were comparable. In this present study, 5 laboratories, 4 rSSO and 1 SBT laboratory, were unable to distinguish MICA*008:01 from MICA*008:04. MICA*008:01 differs from MICA*008:04 in the leader sequence (TTC ->TTT) resulting in a synonymous substitution.

MICA*041 is the second MICA allele. One laboratory using SSP reported MICA*002/*020. MICA*002 differs from MICA*041 at codon 26 in which valine in MICA*002 is replaced by glycine in MICA*041. This cell is the sole MICA*041 typed in the Exchange.

MICA#063 (Hispanic)

This sample is homozygous for MICA*002 (A9). As with MICA#061, over half the laboratories reported MICA*002/*020/*055. MICA*002:01 was reported by the 3 sequencing laboratories and 1 laboratory using rSSO. One SSP laboratory reported MICA*002 while the other SSP laboratory reported MICA*002/*020.

MICA#064 (Black)

MICA*004 (A6) and MICA*018 (A4) were assigned in complete consensus by all 22 laboratories. This sample was previously typed as MICA#034 (2009). In the 2009 study, only the sequencing laboratories assigned MICA*018:01. In this present study, 8 rSSO laboratories in addition to the 2 sequencing laboratories reported MICA*018:01.

NEXT MAILING DATE: August 1, 2012

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Table 1: MICA typing results reported by participating laboratories.						
MICA#061 (Caucasian)	Ctr	Investigator	MICA* allele-1	MICA* allele-2	Others	Method
	16	Askar,Medhat	*002/*020/*055	*011		rSSO
	234	Amador,Alexandra	*002:01/*002:04//*020/*055	*011		rSSO
	278	Lee,Jar-How	*002/*020/*055	*011		rSSO
	733	Mytilineos,Joannis	*002:01	*011		SBT
	759	Lopez-Cepero,My	*002/*020/*055	*011		rSSO
	762	Fischer&Mayr	*002:01	*011		SBT,TA Cloning
	791	Lacelle, Chantale	*002:01(A9)	*011(A6)		SBT
	836	KuKuruga,Debra	*002/*020/*055	*011		rSSO
	1466	Yu,Neng	*002/*020/*055	*011		rSSO
	1647	Gautreux,Micha	*002:01/*002:04	*011		rSSO
	2518	Tambur,Anat	*002:01/*002:04	*011	*020/*055	rSSO
	2549	Fagoaga,Omar	*002/*020/*055	*011		rSSO
	3224	Chen,Dong-Feng	*002/*020/*055	*011		rSSO
	3753	Reed,Elaine F.	*002/*020/*055	*011		rSSO
	3775	Vidan-Jeras,Blank	*002/*020/*055	*011		rSSO
	3798	Reinsmoen,Nancy	*002:01/*002:04//*020/*055	*011		rSSO
	3966	Permpikul&Vejbæ	*002/*020	*011		SSP
	4337	Kim,Tai-Gyu	*002	*011		SSP
	5231	Nelson,Karen	*002/*020/*055	*011		rSSO
	8030	Poulton,Kay V.	*002:01	*011	*055	rSSO
	8040	Gladman/Pellet/P	*002	*011		rSSO
	8053	Tyan,Dolly	*002/*020/*055	*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).

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

SBT - sequencing-based testing

SSP - sequence-specific priming typing

Table 2: MICA typing results reported by participating laboratories.						
MICA#062 (Black)	Ctr	Investigator	MICA* allele-1	MICA* allele-2	Others	Method
	16	Askar,Medhat	*008	*041		rSSO
	234	Amador,Alexandra	*008:01/*008:04	*041		rSSO
	278	Lee,Jar-How	*008	*041		rSSO
	733	Mytilineos,Joannis	*008:01:01	*041	*08:01:02/*008:04	SBT
	759	Lopez-Cepero,My	*008	*041		rSSO
	762	Fischer&Mayr	*008:01/*008:04	*041		SBT, TA Cloning
	791	Lacelle, Chantale	*008:01(A5.1)	*041(A9)	*008:04(A5.1), *041(A9)	SBT
	836	KuKuruga,Debra	*008	*041		rSSO
	1466	Yu,Neng	*008	*041		rSSO
	1647	Gautreaux,Micha	*008:01/*008:04	*041		rSSO
	2518	Tambur,Anat	*008	*041		rSSO
	2549	Fagoaga,Omar	*008	*041		rSSO
	3224	Chen,Dong-Feng	*008	*041		rSSO
	3753	Reed,Elaine F.	*008	*041		rSSO
	3775	Vidan-Jeras,Blank	*008	*041		rSSO
	3798	Reinsmoen,Nancy	*008:01/*008:04	*041		rSSO
	3966	Permpikul&Vejbæ	*008	*002/*020		SSP
	4337	Kim,Tai-Gyu	*008	*041		SSP
	5231	Nelson,Karen	*008	*041		rSSO
	8030	Poulton,Kay V.	*008:01/*008:04	*041		rSSO
	8040	Gladman/Pellet/P	*008	*041		rSSO
	8053	Tyan,Dolly	*008	*041		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#063 (Hispanic)	Ctr	Investigator	MICA* allele-1	MICA* allele-2	Others	Method
	16	Askar, Medhat	*002/*020/*055			rSSO
	234	Amador, Alexandr	*002:01/*002:04/*020/*055	*002:01/*002:03/*002:04/*020/*055		rSSO
	278	Lee, Jar-How	*002/*020/*055			rSSO
	733	Mytilineos, Joanni	*002:01			SBT
	759	Lopez-Cepero, My	*002/*020/*055			rSSO
	762	Fischer&Mayr	*002:01			SBT, TA Cloning
	791	Lacelle, Chantale	*002:01 (A9)			SBT
	836	KuKuruga, Debra	*002/*020/*055			rSSO
	1466	Yu, Neng	*002/*020/*055	*002/*020/*055		rSSO
	1647	Gautreaux, Micha	*002:01/*002:03/*002:04			rSSO
	2518	Tambur, Anat	*002:01/*002:04	*002:01/*002:03/*002:04	*020/*055	rSSO
	2549	Fagoaga, Omar	*002/*020/*055	*002/*020/*055		rSSO
	3224	Chen, Dong-Feng	*002/*020/*055			rSSO
	3753	Reed, Elaine F.	*002/*020/*055	*002/*020/*055		rSSO
	3775	Vidan-Jeras, Blan	*002/*020/*055	*002/*020/*055		rSSO
	3798	Reinsmoen, Nan	*002:01/*002:03/*002:04/*020/*055			rSSO
	3966	Permpikul&Vejb	*002/*020			SSP
	4337	Kim, Tai-Gyu	*002			SSP
	5231	Nelson, Karen	*002/*020/*055	*002/*020/*055		rSSO
	8030	Poulton, Kay V.	*002:01	*002:01/*03	*020/*030/*052/*055	rSSO
	8040	Gladman/Pellet/F	*046	*052		rSSO
	8053	Tyan, Dolly	*002/*020/*055	*002/*020/*055		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 4: MICA typing results reported by participating laboratories.						
MICA#064 (Black)	Ctr	Investigator	MICA* allele-1	MICA* allele-2	Others	Method
	16	Askar,Medhat	*004	*018		rSSO
	234	Amador,Alexandra	*004	*018:01		rSSO
	278	Lee,Jar-How	*004	*018		rSSO
	733	Mytilineos,Joannis	*004	*018:01		SBT
	759	Lopez-Cepero,My	*004	*018		rSSO
	762	Fischer&Mayr	*004	*018:01		SBT,TA Cloning
	791	Lacelle, Chantale	*004(A6)	*018:01 (A4)		SBT
	836	KuKuruga,Debra	*004	*018		rSSO
	1466	Yu,Neng	*004	*018		rSSO
	1647	Gautreaux,Micha	*004	*018:01		rSSO
	2518	Tambur,Anat	*004	*018:01		rSSO
	2549	Fagoaga,Omar	*004	*018		rSSO
	3224	Chen,Dong-Feng	*004	*018		rSSO
	3753	Reed,Elaine F.	*004	*018		rSSO
	3775	Vidan-Jeras,Blank	*004	*018:01		rSSO
	3798	Reinsmoen,Nancy	*004	*018:01		rSSO
	3966	Permpikul&Vejbae	*004	*018		SSP
	4337	Kim,Tai-Gyu	*004	*018		SSP
	5231	Nelson,Karen	*004	*018:01		rSSO
	8030	Poulton,Kay V.	*004	*018:01		rSSO
	8040	Gladman/Pellet/P	*004	*018		rSSO
	8053	Tyan,Dolly	*004	*018:01		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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