

# REPORT OF THE 14th UCLA INTERNATIONAL MICA EXCHANGE

*August 3, 2011*

MICA 53-56

We thank all participating laboratories in the UCLA International MICA Exchange Program. Four DNA samples were shipped to 24 laboratories, and MICA typing results were received from 21 laboratories (Table 1). Fifteen laboratories used a reverse sequence-specific oligonucleotide (rSSO) hybridization method, 3 laboratories used sequencing-based testing (SBT), and 3 laboratories used sequence-specific priming (SSP) typing. The number

of GCT-repeats in exon 5 was reported by two 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#053 (Hispanic)**

MICA\*004(A6) and MICA\*027(A5) were present in this sample as reported by SBT and SSP. The majority of the laboratories performing rSSO reported MICA\*027/\*048/\*063N. MICA\*027 and MICA\*048 have the same nucleotide sequences in exons 2, 3 and 4, but differ at codon 316 where MICA\*027 has glutamic acid and MICA\*048 has aspartic acid. MICA\*063N is distinguished from MICA\*027 by a single nucleotide substitution at position 184 (C->T) resulting in a premature stop codon (CAG->TAG) at codon 39.

## **MICA#054 (Hispanic)**

This homozygous sample was reported by consensus as MICA\*001 (A4). MICA\*001 only differs from MICA\*018 at position 125 (exon 3) where MICA\*001 has a lysine acid while MICA\*018 has a glutamic acid. MICA\*002, MICA\*018, MICA\*020, and MICA\*024 all share glutamic acid at this position.

## **MICA#055 (Hispanic)**

MICA\*009(A6) and MICA\*018(A4) were present in this sample. A number of laboratories reported MICA\*009:01/\*049. MICA\*009 is identical to MICA\*049 except at codon 333 (exon 6) in the transmembrane domain, where MICA\*009 has a threonine while MICA\*049 has a methionine.

## **MICA#056 (Hispanic)**

MICA\*007:01 (A4) and MICA\*017(A9) were reported for this sample by the sequencing laboratories. The majority of the laboratories performing rSSO and SSP reported MICA\*007/\*026. MICA\*007:01 differs from MICA\*026 by the number of GCT repeats in exon 5. MICA\*007 has 4 GCT repeats while MICA\*026 has 6 GCT repeats.

***NEXT MAILING DATE: February 1, 2012***

*Arlene Locke, Marie Lau, Qiuhe Zhang, Rajalingam Raja, J.Michael Cecka, and Elaine F. Reed*

<b>Table 1: MICA typing results reported by participating laboratories.</b>						
<b>MICA#053 (Hispanic)</b>	<b>Ctr</b>	<b>Investigator</b>	<b>MICA* allele-1</b>	<b>MICA* allele-2</b>	<b>Others</b>	<b>Method</b>
	16	Askar, Medhat	*004	*027/*048/*063N		rSSO
	3224	Chen, Dong-Feng	*004	*027/*048/*063N		rSSO
	762	Fischer&Mayr	*004(A6)	*027(A5)		SBT
	1647	Gautreaux, Micha	*004	*027/*048		rSSO
	234	Gomez, Carmen	*004	*027/*048/*063N		rSSO
	4337	Kim, Tai-Gyu	*004	*027		SSP
	836	KuKuruga, Debra	*004	*027/*048/*063N		rSSO
	791	Lacelle, Chantale	*004(A6)	*027(A5)		SBT
	278	Lee, Jar-How	*004	*027/*048/*063N		rSSO
	759	Lopez-Cepero, My	*004	*027/*048		rSSO
	733	Mytilineos, Joannis	*004	*027		SBT
	5231	Nelson, Karen	*004	*027/*048		rSSO
	3966	Permpikul&Vejbæ	*004	*008		SSP
	8030	Poulton, Kay V.	*004	*027	*048/*063N	rSSO
	3753	Reed, Elaine F.	*004	*027/*048/*063N		rSSO
	3625	Rees, Tracey	*004	*027		SSP
	3798	Reinsmoen, Nancy	*004	*027/*048/*063N		rSSO
	2518	Tambur, Anat	*004	*027/*048	*063N	rSSO
	8053	Tyan, Dolly	*004	*027/*048/*063N		rSSO
	3775	Vidan-Jeras, Blank	*004	*027/*048/*063N		rSSO
	1466	Yu, Neng	*004	*027/*048		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

<b>Table 2: MICA typing results reported by participating laboratories.</b>						
<b>MICA#054 (Hispanic)</b>	<b>Ctr</b>	<b>Investigator</b>	<b>MICA* allele-1</b>	<b>MICA* allele-2</b>	<b>Others</b>	<b>Method</b>
	16	Askar, Medhat	*001			rSSO
	3224	Chen, Dong-Feng	*001			rSSO
	762	Fischer&Mayr	*001(A4)			SBT
	1647	Gautreaux, Micha	*001			rSSO
	234	Gomez, Carmen	*001	*001		rSSO
	4337	Kim, Tai-Gyu	*001			SSP
	836	KuKuruga, Debra	*001			rSSO
	791	Lacelle, Chantale	*001(A4)			SBT
	278	Lee, Jar-How	*001	*001		rSSO
	759	Lopez-Cepero, My	*001	*002:03/*018:01		rSSO
	733	Mytilineos, Joannis	*001			SBT
	5231	Nelson, Karen	*001			rSSO
	3966	Permpikul&Vejbæ	*001			SSP
	8030	Poulton, Kay V.	*001			rSSO
	3753	Reed, Elaine F.	*001	*001/*018		rSSO
	3625	Rees, Tracey	*001	*001/*020/*024		SSP
	3798	Reinsmoen, Nancy	*001			rSSO
	2518	Tambur, Anat	*001	*001		rSSO
	8053	Tyan, Dolly	*001			rSSO
	3775	Vidan-Jeras, Blank	*001			rSSO
	1466	Yu, Neng	*001	*002/*018		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

<b>Table 3: MICA typing results reported by participating laboratories.</b>						
<b>MICA#055 (Hispanic)</b>	<b>Ctr</b>	<b>Investigator</b>	<b>MICA* allele-1</b>	<b>MICA* allele-2</b>	<b>Others</b>	<b>Method</b>
	16	Askar, Medhat	*009:01/*049	*018:01		rSSO
	3224	Chen, Dong-Feng	*009:01/*049	*018:01		rSSO
	762	Fischer&Mayr	*009:01(A6)	*018:01(A4)	*049	SBT
	1647	Gautreaux, Micha	*009/*049	*018		rSSO
	234	Gomez, Carmen	*009:01/*018:01	*018:01/*049		rSSO
	4337	Kim, Tai-Gyu	*009	*018		SSP
	836	KuKuruga, Debra	*009/*049	*018		rSSO
	791	Lacelle, Chantale	*009:01/*049(A6)	*018:01(A4)		SBT
	278	Lee, Jar-How	*009:01/*018:01	*018:01/*049		rSSO
	759	Lopez-Cepero, My	*009:01/*049	*018:01		rSSO
	733	Mytilineos, Joannis	*009:01	*018:01	*049	SBT
	5231	Nelson, Karen	*009/*049	*018		rSSO
	3966	Permpikul&Vejbæ	*009	*018		SSP
	8030	Poulton, Kay V.	*009:01	*018:01	*049	rSSO
	3753	Reed, Elaine F.	*009/*049	*018		rSSO
	3625	Rees, Tracey	*009	*018		SSP
	3798	Reinsmoen, Nancy	*009:01/*049	*018:01		rSSO
	2518	Tambur, Anat	*009/*049	*018		rSSO
	8053	Tyan, Dolly	*009:01/*049	*018:01		rSSO
	3775	Vidan-Jeras, Blank	*009/*049	*018		rSSO
	1466	Yu, Neng	*009/*049	*018		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

<b>Table 4: MICA typing results reported by participating laboratories.</b>						
<b>MICA#056 (Hisp)</b>	<b>Ctr</b>	<b>Investigator</b>	<b>MICA* allele-1</b>	<b>MICA* allele-2</b>	<b>Others</b>	<b>Method</b>
	16	Askar, Medhat	*007:01/*026	*017		rSSO
	3224	Chen, Dong-Feng	*007:01/*026	*017		rSSO
	762	Fischer&Mayr	*007:01(A4)	*017(A9)		SBT
	1647	Gautreaux, Micha	*007/*026	*017		rSSO
	234	Gomez, Carmen	*007:01/*017	*017/*026		rSSO
	4337	Kim, Tai-Gyu	*007	*017		SSP
	836	KuKuruga, Debra	*007/*026	*017		rSSO
	791	Lacelle, Chantale	*007:01(A4)	*017(A9)		SBT
	278	Lee, Jar-How	*007:01/*017	*017/*026		rSSO
	759	Lopez-Cepero, My	*018:02	*017		rSSO
	733	Mytilineos, Joannis	*007:01	*017		SBT
	5231	Nelson, Karen	*007/*026	*017		rSSO
	3966	Permpikul&Vejbæ	*007/*026	*017		SSP
	8030	Poulton, Kay V.	*007:01	*017	*026	rSSO
	3753	Reed, Elaine F.	*007/*026	*017		rSSO
	3625	Rees, Tracey	*007/*026	*017		SSP
	3798	Reinsmoen, Nancy	*007:01/*026	*017		rSSO
	2518	Tambur, Anat	*007/*026	*017		rSSO
	8053	Tyan, Dolly	*007:01/*026	*017		rSSO
	3775	Vidan-Jeras, Blank	*007/*026	*017		rSSO
	1466	Yu, Neng	*007/*026	*017		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