

# REPORT OF THE 19<sup>th</sup> UCLA INTERNATIONAL MICA EXCHANGE

May 8, 2013

MICA 73-76

For the 19<sup>th</sup> MICA Exchange, 4 DNA samples (MICA#073-MICA#076) were shipped to 23 laboratories. MICA typing results were received from 20 laboratories and individual laboratory results are shown in Tables 1 – 4. Seventeen laboratories used a reverse sequence-specific oligonucleotide (rSSO) hybridization method, 2 laboratories used sequence-specific primer (SSP) typing, and 1 laboratory used sequencing-based testing (SBT).

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.

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## MICA#073 (Black)

The consensus type for this sample is MICA\*004 and MICA\*008. MICA\*004/\*067 was reported by 7 labs. MICA\*067 differs from MICA\*004 in exon 3 at codon 102 by a single nucleotide substitution (AAC to AGC), resulting in an amino acid change from asparagine to serine.

MICA\*008:01 was assigned by 1 lab and 6 labs reported MICA\*008:01/\*008:04. MICA\*008:04 differs from MICA\*008:01 in exon 1 by a single nucleotide substitution (TTC to TTT), resulting in a synonymous substitution.

## MICA#074 (Asian)

This sample is homozygous for MICA\*002. MICA\*002 was assigned by 6 labs, with 2 labs assigning MICA\*002:01. Twelve labs were unable to resolve MICA\*002 from MICA\*020 and MICA\*055. MICA\*002(A9), MICA\*020(A10), and MICA\*055(A8) differ by their number of GCT repeats.

## MICA#075 (Hispanic)

For this sample, MICA\*010 was reported by half the labs (n=10), with 1 lab assigning MICA\*010:01. The remainder 13 labs were unable to distinguish MICA\*010 from MICA\*019 and MICA\*065.

The assignment of the second MICA allele was not well defined, with 4 labs assigning MICA\*019 and another 6 labs assigning MICA\*010/\*019. MICA\*010 differs from MICA\*019 in exon 2 by a single amino acid substitution (CCT to CGT) at codon 6, resulting in an amino acid change from proline to arginine. The expression of proline at position 6, results in the loss of cell surface expression of MICA\*010.

## MICA#076 (Hispanic)

MICA\*011 was reported by all but 1 lab for this sample. MICA\*002 was assigned by 6 labs, with 3 labs assigning MICA\*002:01. Over half the labs (n=11) reported MICA\*002/\*020/\*055.

**NEXT MAILING DATE: August 7, 2013**

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<b>Table 1: MICA typing results reported by participating laboratories.</b>						
<b>MICA#073 (Black)</b>	<b>Ctr</b>	<b>Investigator</b>	<b>MICA* allele-1</b>	<b>MICA* allele-2</b>	<b>Others</b>	<b>Method</b>
	234	Amador,Alexandra	*004	*008:01/*008:04		rSSO
	16	Askar,Medhat	*004	*008		rSSO
	3224	Chen,Dong-Feng	*004	*008:01/*008:04		rSSO
	2549	Fagoaga,Omar	*004/*067	*008		rSSO
	762	Fischer,Gottfried	*004	*008:01		SBT
	1647	Gautreaux,Micha	*004/*067	*008:01/*008:04		rSSO
	8040	Gladman/Abji/Pelle	*004	*008:01/*008:04		rSSO
	4337	Kim,Tai-Gyu	*004	*008		SSP
	836	KuKuruga,Debra	*004	*008/*070		rSSO
	278	Lee,Jar-How	*004	*008		rSSO
	759	Lopez-Cepero,My	*004	*008		rSSO
	5231	Nelson,Karen	*004/*067	*008		rSSO
	3966	Permpikul&Vejbae	*004	*008		SSP
	8030	Poulton,Kay V.	*004	*008:01/*008:04	*058	rSSO
	3753	Reed,Elaine F.	*004	*008		rSSO
	3798	Reinsmoen,Nancy	*004/*067	*008		rSSO
	2518	Tambur,Anat	*004	*008:01/*008:04	*067	rSSO
	8053	Tyan,Dolly	*004/*067	*008		rSSO
	3775	Vidan-Jeras,Blank	*004/*067	*008		rSSO
	1466	Yu,Neng	*004/*067	*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

<b>Table 2: MICA typing results reported by participating laboratories.</b>						
<b>MICA#074 (Asian)</b>	<b>Ctr</b>	<b>Investigator</b>	<b>MICA* allele-1</b>	<b>MICA* allele-2</b>	<b>Others</b>	<b>Method</b>
	234	Amador,Alexandra	*002:01/*002:03/*020/*055	*002:01/*002:03/*020/*055		rSSO
	16	Askar,Medhat	*002/*020/*055			rSSO
	3224	Chen,Dong-Feng	*002/*020/*055			rSSO
	2549	Fagoaga,Omar	*002/*020/*055			rSSO
	762	Fischer,Gottfried	*002:01			SBT
	1647	Gautreaux,Micha	*002:01/*002:03	*020/*055		rSSO
	8040	Gladman/Abji/Pelle	*002:01	*002		rSSO
	4337	Kim,Tai-Gyu	*002			SSP
	836	KuKuruga,Debra	*002/*020/*055/*068	*002/*020/*055/*068		rSSO
	278	Lee,Jar-How	*002/*020/*055			rSSO
	759	Lopez-Cepero,My	*002/*020/*055			rSSO
	5231	Nelson,Karen	*002/*020/*055			rSSO
	3966	Permpikul&Vejbae	*002/*020	*007		SSP
	8030	Poulton,Kay V.	*002:01/*002:03	*002:01	*020/*030/*052/*055	rSSO
	3753	Reed,Elaine F.	*002/*020/*055	*002/*020/*055		rSSO
	3798	Reinsmoen,Nancy	*002/*020/*055	*002/*020/*055		rSSO
	2518	Tambur,Anat	*002:01/*002:03/*002:04	*002:01/*002:03/*002:04	*020/*055	rSSO
	8053	Tyan,Dolly	*002/*020/*055			rSSO
	3775	Vidan-Jeras,Blank	*002/*020/*055	*002/*020/*055		rSSO
	1466	Yu,Neng	*002/*020/*055			rSSO

<b>Table 3: MICA typing results reported by participating laboratories.</b>						
<b>MICA#075 (Hispanic)</b>	<b>Ctr</b>	<b>Investigator</b>	<b>MICA* allele-1</b>	<b>MICA* allele-2</b>	<b>Others</b>	<b>Method</b>
	234	Amador,Alexandr	*010:01	*010:01/*019		rSSO
	16	Askar,Medhat	*010/*019			rSSO
	3224	Chen,Dong-Feng	*010	*010/*019		rSSO
	2549	Fagoaga,Omar	*010/*019/*065	*010/*019/*065/*066		rSSO
	762	Fischer,Gottfried	*010	*019		SBT
	1647	Gautreaux,Micha	*019			rSSO
	8040	Gladman/Abji/Pe	*010	*010/*019		rSSO
	4337	Kim,Tai-Gyu	*010	*019		SSP
	836	KuKuruga,Debra	*010/*069	*010/*019/*069		rSSO
	278	Lee,Jar-How	*010	*010/*019		rSSO
	759	Lopez-Cepero,M	*010	*010/*019		rSSO
	5231	Nelson,Karen	*010/*019/*065/*066			rSSO
	3966	Permpikul&Vejba	*010	*019		SSP
	8030	Poulton,Kay V.	*016		*019/*033/*056	rSSO
	3753	Reed,Elaine F.	*010	*010/*019		rSSO
	3798	Reinsmoen,Nan	*010/*019/*065	*010/*019/*065/*066		rSSO
	2518	Tambur,Anat	*010:01/*010:02	*010:01/*010:02	*019/*065/*066	rSSO
	8053	Tyan,Dolly	*010/*019/*065/*066	*010/*019/*065		rSSO
	3775	Vidan-Jeras,Blan	*010/*019/*065	*010/*019/*065/*066		rSSO
	1466	Yu,Neng	*010/*019/*065/*066	*010/*065/*066		rSSO

<b>Table 4: MICA typing results reported by participating laboratories.</b>						
<b>MICA#076 (Hispanic)</b>	<b>Ctr</b>	<b>Investigator</b>	<b>MICA* allele-1</b>	<b>MICA* allele-2</b>	<b>Others</b>	<b>Method</b>
	234	Amador,Alexandra	*002:01/*002:03/*020/*055	*011		rSSO
	16	Askar,Medhat	*002/*020/*055	*011		rSSO
	3224	Chen,Dong-Feng	*002/*020/*055	*011		rSSO
	2549	Fagoaga,Omar	*002/*020/*055	*011		rSSO
	762	Fischer,Gottfried	*002:01	*011		SBT
	1647	Gautreaux,Micha	*002:01/*002:03	*011/*020/*055		rSSO
	8040	Gladman/Abji/Pelle	*002:01	*011		rSSO
	4337	Kim,Tai-Gyu	*002	*011		SSP
	836	KuKuruga,Debra	*002/*020/*055/*068	*011		rSSO
	278	Lee,Jar-How	*002/*020/*055	*011		rSSO
	759	Lopez-Cepero,My	*002/*020/*055	*011		rSSO
	5231	Nelson,Karen	*002/*020/*055	*011		rSSO
	3966	Permpikul&Vejbae	*002/*020	*011		SSP
	8030	Poulton,Kay V.	*002:01	*011	*020/*055	rSSO
	3753	Reed,Elaine F.	*002/*020/*055	*011		rSSO
	3798	Reinsmoen,Nancy	*002/*020/*055	*011		rSSO
	2518	Tambur,Anat	*002:01/*002:03/*002:04	*011	*020/*055	rSSO
	8053	Tyan,Dolly	*002/*020/*055	*011		rSSO
	3775	Vidan-Jeras,Blank	*002/*020/*055	*011		rSSO
	1466	Yu,Neng	*002/*020/*055	*011		rSSO