

REPORT OF THE 22nd UCLA International MICA Exchange

APRIL 16, 2014

MICA

85-88

For the 22nd MICA Exchange, 4 DNA samples (MICA#085-MICA#088) were shipped to 23 laboratories. MICA typing results were received from 17 laboratories and individual laboratory results are shown in Tables 1 – 4. Twelve laboratories used a reverse sequence-specific oligonucleotide

(rSSO) hybridization method, 2 laboratories used sequence-specific primer (SSP) typing, and 2 laboratories used sequencing-based testing (SBT).

We appreciate your continued participation in this important program.

MICA#085. The assigned type for this Hispanic sample is MICA*002. MICA*002:01 was assigned by SBT, and MICA*002 was assigned by 1 lab using SSO. The remainder of the labs (n=14) were unable to resolve MICA*002 from among MICA*020, MICA*055, MICA*068, MICA*072, and MICA*075. MICA*002, MICA*020, MICA*055, and MICA*068 are identical in their extracellular domains, but differ in their transmembrane domains. MICA*072 differs from MICA*002 in exon 3 by a single nucleotide substitution (GGC to AGC) at codon 175, resulting in an amino acid change from glycine to serine. MICA*075, in turn, differs from MICA*002 in exon 4 by a single nucleotide substitution (AGG to AAG) at codon 256, where MICA*002 carries an arginine and MICA*075 carries a lysine.

MICA#086. The assigned type for this Filipino sample is MICA*018 and MICA*002. This sample was previously typed as MICA sample #078 in 2013. In this present retyping, Fischer once again commented that a new allele may be present in this cell. The new allele differs from MICA*018 in exon 5 by a single nucleotide substitution (G to A) at codon 279, resulting in an amino acid change from valine to methionine. MICA*018 was assigned by 16 labs, with 5 labs assigning, MICA*018:01.

MICA*002 was reported as the second MICA allele, with SBT assigning MICA*002:01. As in MICA sample #085 in this same study, the majority of

the labs were unable to resolve MICA*002 from MICA*020, MICA*055, MICA*068, MICA*072, and MICA*075.

MICA#087. The assigned type for this Hispanic sample is MICA*010 and MICA*011. MICA*011 was reported in complete consensus. In contrast, MICA*010 was assigned by less than half the labs, (n=7), with SBT and 1 lab using SSO assigning MICA*010:01. MICA*010/*069 was reported by 8 labs. MICA*069 differs from MICA*010 in exon 6 by a single nucleotide substitution (GCT to GAT) at codon 350, resulting in an amino acid change from alanine to aspartic acid. MICA*019 was assigned by 2 labs.

MICA#088. MICA*004 was reported in complete consensus for this Black sample. The assignment of the second MICA allele, MICA*008, was less conclusive. MICA*008 was assigned by 8 labs, with the remainder of the labs (n=9) unable to resolve MICA*008 from MICA*070 and MICA*073. MICA*073 differs from MICA*008 in exon 2 by a single nucleotide substitution (TGG to CGG) at codon 14, where MICA*008 carries a tryptophan and MICA*073 carries an arginine. MICA*070, in turn, differs from MICA*008 in exon 2 by a single nucleotide substitution (AGG to AGC) at codon 38, which results in an amino acid change from arginine to serine.

NEXT MAILING DATE: May 7, 2014

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Table 1: MICA typing results reported by participating laboratories.						
MICA#085 (Hispanic)	CTR	Investigator	MICA Allele-1	MICA Allele-2	Others	Method
	234	Amador, Alexandra	*002:AC	*002:AC	*020/*055/*068/*072/*075	SSO
	16	Askar, Medhat Z.	*002/020/055/068/072/075			SSO
	2549	Fagoaga, Omar	*002	*002		SSO
	762	Fischer, Gottfried	*002:01			SBT
	4337	Kim, Tai-Gyu	*002:01/*002:03/*020/*055			SSP
	836	KuKuruga, Debra	*002/*020/*055/*068/*072	*002/*020/*055/*068/*072/*075		SSO
	759	Lopez-Cepero, Mayra	*002/*020/*055/*068/*072	*002/*020/*052/*055/*068/*072/*075		SSO
	733	Mytilineos, Joannis	*002:01		*068	SBT
	5231	Nelson, Karen	*002/*020/*055			SSO
	3966	Permpikul, Vejbaesya &	*002/*020	x		SSP
	8030	Poulton, Kay	*002:01/03		*020/055/068/072/075	SSO
	3753	Reed, Elaine F.	*002/*020/*055/*068/*072	*002/*020/*055/*068/*072/*075		SSO
	3798	Reinsmoen, Nancy L.	*002/*020/*055/*068/*072	*002/*020/*055/*068/*072/*075		SSO
	2518	Tambur, Anat	*002	*020	*055/*068/*072/*075	SSO
	8053	Tyan, Fernandez-Vina &	*002/*020/*055/*068/*072/*075	*002/*020/*055/*068/*072		SSO
	3775	Vidan-Jeras, Blanka	*002/*020/*055/*068/*072	*002/*020/*055/*068/*072/*075		
	1466	Yu, Neng	*002/*020/*055/*068	*002/*020/*055/*068		SSO

Table 2: MICA typing results reported by participating laboratories.						
MICA#086 (Filipino)	CTR	Investigator	MICA Allele-1	MICA Allele-2	Others	Method
	234	Amador, Alexandra	*002:AC	*018:01	*020/*055/*068/*072/*075	SSO
	16	Askar, Medhat Z.	*002/*020/*055/*068/*072/*075	*018		SSO
	2549	Fagoaga, Omar	*002	*018:01		SSO
	762	Fischer, Gottfried	*002:01	new allele	new allele exon5 codon279 G->A	SBT
	4337	Kim, Tai-Gyu	*002:01/*002:03/*020/*055	*018:01		SSP
	836	KuKuruga, Debra	*002/*020/*055/*068/*072/*075	*018		SSO
	759	Lopez-Cepero, Mayra	*002/*020/*055/*068/*072/*075	*018		SSO
	733	Mytilineos, Joannis	*002:01	*018:01	*052	SBT
	5231	Nelson, Karen	*002/*020/*055	*018		SSO
	3966	Permpikul, Vejbaesya &	*002/020	*018		SSP
	8030	Poulton, Kay	*002:01/03	*018:01	*020/*055/*068/*072/*075	SSO
	3753	Reed, Elaine F.	*002/*020/*055/*068/*072/*075	*018		SSO
	3798	Reinsmoen, Nancy L.	*002/*020/*055/*068/*072/*075	*018		SSO
	2518	Tambur, Anat	*002	*018	*020/*055/*068/*072/*075	SSO
	8053	Tyan, Fernandez-Vina &	*002/*020/*055/*068/*072/*075	*018		SSO
	3775	Vidan-Jeras, Blanka	*002/*020/*055/*068/*072/*075	*018		
	1466	Yu, Neng	*002/*020/*055/*068	*018		SSO

Table 3: MICA typing results reported by participating laboratories.						
MICA#087 (Hispanic)	CTR	Investigator	MICA Allele-1	MICA Allele-2	Others	Method
	234	Amador, Alexandra	*010:01	*011	*069	SSO
	16	Askar, Medhat Z.	*010/*069	*011		SSO
	2549	Fagoaga, Omar	*019	*011		SSO
	762	Fischer, Gottfried	*010:01	*011		SBT
	4337	Kim, Tai-Gyu	*010	*011		SSP
	836	KuKuruga, Debra	*010/*069	*011		SSO
	759	Lopez-Cepero, Mayra	*010/*069	*011		SSO
	733	Mytilineos, Joannis	*010:01	*011	*069	SBT
	5231	Nelson, Karen	*010	*011		SSO
	3966	Permpikul, Vejbaesya &	*010	*011		SSP
	8030	Poulton, Kay	*019	*011		SSO
	3753	Reed, Elaine F.	*010/*069	*011		SSO
	3798	Reinsmoen, Nancy L.	*010/*069	*011		SSO
	2518	Tambur, Anat	*010	*011	*069	SSO
	8053	Tyan, Fernandez-Vina &	*010/*069	*011		SSO
	3775	Vidan-Jeras, Blanka	*010/*069	*011		
	1466	Yu, Neng	*010/*069	*011		SSO

Table 4: MICA typing results reported by participating laboratories.						
MICA#088 (Black)	CTR	Investigator	MICA Allele-1	MICA Allele-2	Others	Method
	234	Amador, Alexandra	*004	*008:AD	*070/*073	SSO
	16	Askar, Medhat Z.	*004	*008/*070/*073		SSO
	2549	Fagoaga, Omar	*004	*008		SSO
	762	Fischer, Gottfried	*004	*008:04		SBT
	4337	Kim, Tai-Gyu	*004	*008:01/*008:04		SSP
	836	KuKuruga, Debra	*004	*008/*070/*073		SSO
	759	Lopez-Cepero, Mayra	*004	*008/*070/*073		SSO
	733	Mytilineos, Joannis	*004	*008:01	008:04	SBT
	5231	Nelson, Karen	*004	*008		SSO
	3966	Permpikul, Vejbaesya &	*004	*008		SSP
	8030	Poulton, Kay	*004	*008:01/*008:04	*070/*073	SSO
	3753	Reed, Elaine F.	*004	*008/*070/*073		SSO
	3798	Reinsmoen, Nancy L.	*004	*008/*070/*073		SSO
	2518	Tambur, Anat	*004	*008	*070/*073	SSO
	8053	Tyan, Fernandez-Vina &	*004	*008/*070/*073		SSO
	3775	Vidan-Jeras, Blanka	*004	*008/*070/*073		
	1466	Yu, Neng	*004	*008/*070		SSO

PARTICIPATING CENTERS

PARTICIPATING CENTERS										
Name			City/State	Country		Name			City/State	Country
Amador	Alexandra		Miami FL			Nelson	Karen	PhD	Seattle WA	
Askar	Medhat	MD PhD	Cleveland OH			Permpikul	Vejbaesya/	Drs	Bangkok	Thailand
Fagoaga	Omar	Dr	Detroit MI			Poulton	Kay V.	Dr	Manchester	England
Fischer	Gottfried	Dr	Vienna	Austria		Reed	Elaine F.	Dr	Los Angeles CA	
Kim	Tai-Gyo	Prof	Seoul	Korea		Reinsmoen	Nancy L	PhD	Los Angeles CA	
KuKuruga	Debra	PhD	Baltimore MD			Tambur	Anat		Chicago IL	
Lee	Jar-How	Dr	Woodland Hills CA			Tyan	Fernandez-Vina/	Drs	Palo Alto CA	
Lopez-Cepero	Mayra	PhD	Tampa FL			Vidan-Jeras	Blanka		Ljubljana	Slovenia
Mytilineos	Joannis	MD	Ulm	Germany		Yu	Neng	MD	Dedham MA	