

REPORT OF THE 44th INTERNATIONAL MICA EXCHANGE

NOVEMBER 2, 2022

MICA

187 - 192

For the 44th MICA Exchange, 6 DNA samples (MICA #187 - MICA#192) were shipped to 16 laboratories worldwide. MICA typing results were received

from 14 laboratories. Results are summarized on Table 1 and individual laboratory results are listed on tables 2 - 7.

MICA #187. MICA*006-MICA*016 was the reported MICA genotype for this sample from a Hispanic donor. MICA*006 was assigned in complete consensus. MICA*016 was reported by 93%, with 7 labs assigning the subtype as MICA*016:01. One lab misassigned MICA*019.

MICA #188. MICA*001-MICA*010 was the reported MICA genotype for this sample from a Caucasian donor. MICA*001 was reported in complete consensus.

MICA*010 was reported by 11 labs (79%), with 7 of the labs reporting the subtype as MICA*010:01. Two labs reported MICA*010/*069 and 1 lab reported MICA*010:01/*065/*069. MICA*010 differs from MICA*069 in exon 6 by a single nucleotide substitution at codon 350 (GAT → GCT), in which aspartic acid is replaced by alanine in MICA*010.

MICA #189. MICA*018-MICA*019 was the reported MICA genotype for this sample from a Hispanic donor. MICA*018 was assigned by 100% of labs, with 8 labs assigning MICA*018:01 as the subtype. MICA*019 was also assigned by 100%, with 8 labs assigning MICA*019:01.

MICA #190. The first allele for this sample from a Hispanic donor was well assigned by 100% as MICA*041. No agreement, however, was achieved for the assignment of the second allele. Five labs assigned MICA*041, 2 labs

assigned MICA*041/*002, and 1 lab assigned MICA*002. Three other labs indicated a variant or new allele was present. Askar, Kanangat, and Zhang each noted the new allele differs from MICA*041 by a single nucleotide substitution in exon 6 at codon 355.2 (GAT → GCT), which results in an amino acid change from aspartic acid to alanine.

MICA #191. MICA*007-MICA*029 was the reported MICA genotype for this sample from a donor of unknown ethnicity. MICA*007 was assigned by 11 labs (84%), with 7 labs assigning MICA*007:01. One lab assigned MICA*007/*029 and another assigned MICA*007/*026/*100/*111.

MICA*029 was assigned in complete consensus as the second MICA allele present. Six labs reported MICA*029:01, 6 labs reported MICA*029, and 1 lab reported MICA*029:01/*029:02.

MICA #192. MICA*009-MICA*068 was the reported MICA genotype for this sample from a Hispanic donor. MICA*009 was assigned by 11 labs, with 7 labs assigning the subtype as MICA*009:01. Three labs were unable to resolve MICA*009 from MICA*049. MICA*049 differs from MICA*009 by a single nucleotide substitution in exon 6 at codon 333 (ACG → ATG), resulting in an amino acid change from threonine to methionine in MICA*049.

MICA*068 was assigned as the second MICA allele by 13 labs. Among them, 8 labs assigned the subtype as MICA*068:01.



NEXT MAILING DATE: February 1, 2023

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Table 1. Summary of 44th MICA Exchange #187 - #192

| MICA#187 | |
|-----------------|-------------|
| 13 labs | |
| Allele-1 | %(n) |
| *006 | 100(13) |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| 14 labs | |
| Allele-2 | %(n) |
| *016:01 | 50(7) |
| *016 | 36(5) |
| *016/*0165 | 7 (1) |
| *019 | 7 (1) |
| | |
| | |
| | |

| MICA#188 | |
|-------------------|-------------|
| 14 labs | |
| Allele - 1 | %(n) |
| *001 | 100(14) |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| 14 labs | |
| Allele - 2 | %(n) |
| *010:01 | 50(7) |
| *010 | 29(4) |
| *010/*069 | 14(2) |
| *010:01/*065/*069 | 7 (1) |
| | |
| | |
| | |

| MICA#189 | |
|-------------------|-------------|
| 14 labs | |
| Allele - 1 | %(n) |
| *018:01 | 57(8) |
| *018 | 36(5) |
| *018:01/*018:02 | 7 (1) |
| | |
| | |
| | |
| | |
| 14 labs | |
| Allele - 2 | %(n) |
| *019:01 | 57(8) |
| *019 | 43(6) |
| | |
| | |
| | |
| | |

| MICA#190 | |
|-----------------|-------------|
| 11 labs | |
| Allele-1 | %(n) |
| *041 | 100(11) |
| | |
| | |
| | |
| | |
| | |
| | |
| 11 labs | |
| Allele-2 | %(n) |
| *041 | 45(5) |
| *041:variant | 9 (1) |
| *041/*002 | 18(2) |
| *002 | 9 (1) |
| new | 18(2) |
| | |
| | |

| MICA#191 | |
|---------------------|-------------|
| 13 labs | |
| Allele - 1 | %(n) |
| *007:01 | 54(7) |
| *007 | 30(4) |
| *007/*029 | 8 (1) |
| *007/*026/*100/*111 | 8 (1) |
| | |
| | |
| | |
| 13 labs | |
| Allele - 2 | %(n) |
| *029:01 | 46(6) |
| *029 | 46(6) |
| *029:01/*029:02 | 8 (1) |
| | |
| | |
| | |

| MICA#192 | |
|------------------------------------|-------------|
| 14 labs | |
| Allele - 1 | %(n) |
| *009:01 | 50(7) |
| *009 | 29(4) |
| *009:01/*049:01 | 7 (1) |
| *009/*049 | 7 (1) |
| *009/*049/*109/*116 | 7 (1) |
| | |
| | |
| 14 labs | |
| Allele - 2 | %(n) |
| *068:01 | 57(8) |
| *068 | 36(5) |
| *002/*020/*023/*052/*055/*089/*090 | 7 (1) |
| | |
| | |
| | |

| Table 2. MICA typing results reported by participating laboratories | | | | | |
|---|------|----------|------------|--------|--------|
| MICA# 187 (Hispanic) | CTR | Allele-1 | Allele-2 | Others | Method |
| | 733 | *006 | *016:01 | | SBT |
| | 762 | *006 | *016:01 | | NGS |
| | 3753 | *006 | *016 | | SSO |
| | 3798 | *006 | *016 | | NGS |
| | 3966 | *006 | *019 | | SSO |
| | 4337 | *006 | *016 | | SSP |
| | 4345 | *006 | *016/*0165 | | SBT |
| | 5133 | *006 | *016:01 | | NGS |
| | 8035 | *006 | *016:01 | | NGS |
| | 8047 | *006 | *016:01 | | NGS |
| | 8073 | NT | *016:01 | | NGS |
| | 8105 | *006 | *016 | | NGS |
| | 8110 | *006 | *016 | | SSO |
| | 8114 | *006 | *016:01 | | NGS |

| Table 3. MICA typing results reported by participating laboratories | | | | | |
|---|------|----------|-------------------|--------|--------|
| MICA# 188 (Caucasian) | CTR | Allele-1 | Allele-2 | Others | Method |
| | 733 | *001 | *010:01 | | SBT |
| | 762 | *001 | *010:01 | | NGS |
| | 3753 | *001 | *010/*069 | | SSO |
| | 3798 | *001 | *010 | | NGS |
| | 3966 | *001 | *010 | | SSO |
| | 4337 | *001 | *010 | | SSP |
| | 4345 | *001 | *010/*069 | | SBT |
| | 5133 | *001 | *010:01 | | NGS |
| | 8035 | *001 | *010:01 | | NGS |
| | 8047 | *001 | *010:01/*065/*069 | | NGS |
| | 8073 | *001 | *010:01 | | NGS |
| | 8105 | *001 | *010:01 | | NGS |
| | 8110 | *001 | *010 | *069 | SSO |
| | 8114 | *001 | *010:01 | | NGS |

| Table 4. MICA typing results reported by participating laboratories | | | | | |
|---|------|-----------------|----------|--------|--------|
| MICA# 189 (Hispanic) | CTR | Allele-1 | Allele-2 | Others | Method |
| | 733 | *018:01 | *019:01 | | SBT |
| | 762 | *018:01 | *019:01 | | NGS |
| | 3753 | *018 | *019 | | SSO |
| | 3798 | *018 | *019 | | NGS |
| | 3966 | *018 | *019 | | SSO |
| | 4337 | *018:01 | *019 | | SSP |
| | 4345 | *018 | *019 | | SBT |
| | 5133 | *018:01 | *019:01 | | NGS |
| | 8035 | *018:01 | *019:01 | | NGS |
| | 8047 | *018:01/*018:02 | *019:01 | | NGS |
| | 8073 | *018:01 | *019:01 | | NGS |
| | 8105 | *018:01 | *019:01 | | NGS |
| | 8110 | *018 | *019 | | SSO |
| | 8114 | *018:01 | *019:01 | | NGS |

Table 5. MICA typing results reported by participating laboratories

| MICA# 190 (Hispanic) | CTR | Allele-1 | Allele-2 | Others | Method |
|---------------------------------|------------|-----------------|-----------------|---------------|---------------|
| | 733 | *041 | - | | SBT |
| | 762 | Undetermined | Undetermed | | NGS |
| | 3753 | *041 | *002/*041 | | SSO |
| | 3798 | *041 | new | | NGS |
| | 3966 | *041 | *041/*002 | | SSO |
| | 4337 | *041 | *041 | | SSP |
| | 4345 | *041 | *041 | | SBT |
| | 5133 | *041 | *041:variant | | NGS |
| | 8035 | *041 | new | | NGS |
| | 8047 | *041 | *041 | | NGS |
| | 8073 | No amplicon | | | NGS |
| | 8105 | *041 | *041 | | NGS |
| | 8110 | *041 | *002 | | SSO |

Table 6. MICA typing results reported by participating laboratories

| MICA# 191 (Unknown) | CTR | Allele-1 | Allele-2 | Others | Method |
|------------------------|------|---------------------|-----------------|--------|--------|
| | 733 | *007:01 | *029:01 | | SBT |
| | 762 | *007:01 | *029:01 | | NGS |
| | 3753 | *007/*029 | *029 | | SSO |
| | 3798 | *007 | *029 | | NGS |
| | 3966 | *007 | *029 | | SSO |
| | 4337 | *007 | *029 | | SSP |
| | 4345 | *007/*026/*100/*111 | *029 | | SBT |
| | 5133 | *007:01 | *029:01 | | NGS |
| | 8035 | *007:01 | *029:01 | | NGS |
| | 8047 | *007:01 | *029:01/*029:02 | | NGS |
| | 8073 | No amplicon | | | NGS |
| | 8105 | *007:01 | *029:01 | | NGS |
| | 8110 | *007 | *029 | | SSO |
| | 8114 | *007:01 | *029:01 | | NGS |

Table 7. MICA typing results reported by participating laboratories

| MICA# 192 (Hispanic) | CTR | Allele-1 | Allele-2 | Others | Method |
|-------------------------|------|---------------------|------------------------------------|--------------------------------|--------|
| | 733 | *009:01 | *068:01 | | SBT |
| | 762 | *009:01 | *068:01 | | NGS |
| | 3753 | *009/*049 | *068 | | SSO |
| | 3798 | *009 | *068 | | NGS |
| | 3966 | *009 | *068 | | SSO |
| | 4337 | *009 | *068 | | SSP |
| | 4345 | *009/*049/*109/*116 | *002/*020/*023/*052/*055/*089/*090 | *072/*091/*092/*093/*110, *120 | SBT |
| | 5133 | *009:01 | *068:01 | | NGS |
| | 8035 | *009:01 | *068:01 | | NGS |
| | 8047 | *009:01/*049:01 | *068:01 | | NGS |
| | 8073 | *009:01 | *068:01 | | NGS |
| | 8105 | *009:01 | *068:01 | | NGS |
| | 8110 | *009 | *068 | *049 | SSO |
| | 8114 | *009:01 | *068:01 | | NGS |