

Minutes of IARC meeting 117, March 6th, 2023

In attendance: Ayelet Peres, Andrew Collins, Martin Corcoran, William Lees, Corey Watson, Mats Ohlin, James Heather

1. Approval of minutes of meeting 116

Approved

2. Next meeting

March 20th, 2023 at 10.00 UTC

3. Proofreading of novel OGRDB entries

IGHV (AC)

TRBV (JH)

4. Discussion of Report of IARC activities to the AIRR-C Executive Sub-committee - Special Meeting with WG/SC Co-leads on March 16, 2023

Discussion. Report accepted for presentation.

Discussion on possibilities for documentation/outreach on best practice in AIRR data analysis.

5. Germline reference set manuscript

Discussion with a focus on extended IGHV sequences and the need for supplementary conformation of IGHD and IGHJ alleles that has not been a major focus on IARC inference processes. The importance of demonstration / discussion of analysis challenges/errors using databases with incomplete or faulty sequences was discussed.

6. Assessment of inference TRBV7-7*01_C315T in P4_I9_S1 (S00036)

TRBV7-7*01_C315T has been inferred in seventeen genotypes in the VDJbase P4 data set, including in VDJbase P4_I9_S1, a haplotypable data set (based on heterozygosity in TRBJ1-6). The genotype is also implied to carry TRBV7-7*01. No other gene apart from IGHV7-6 (alleles of which also carry C315) in the IMGT database is highly similar to these alleles of TRBV7-7. The novel allele is the most expressed allele in the repertoire (58%

The allele has also been identified as TRBV7-7*01_S0326 and Sanger validated (GenBank MZ339373) (Corcoran et al. (2023) Immunity (in press) (10.1016/j.immuni.2023.01.026)). Final decision postponed until next meeting to allow incorporation of genomic validation into our decision process.

Result summary: TRBV7-7*01_C315T	No rearrangement found		
V-GENE and allele	Homsap TRBV7-7*01 F	score = 1380	identity = 100.00% (276/276 nt)
FR-IMGT lengths, CDR-IMGT lengths	[5.6.X]		

Closest V-REGIONS (evaluated from the V-REGION first nucleotide to the 2nd-CYS codon)

(Note: the difference between TRBV7-7*01_C315T and TRBV7-7*01 is outside of the range assessed by IMGT/V-QUEST)



All data:

