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## A novel full-length two-domain *KIR2DL5A* allele isolated in Zimbabwean samples: *KIR2DL5A\*0010104*

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The novel allele *KIR2DL5A\*0010104* differs from that of *KIR2DL5A\*0010101* with eight single intronic nucleotide changes.

**KEYWORDS**

*KIR2DL5*, new allele, SBT, Zimbabwe

KIR allele	Chromosomal positions							
	636	638	904	1290	1293	1334	4161	6793
<i>2DL5A*0010101</i>	A	C	T	G	C	T	A	C
<i>2DL5A*0010104</i>	G	T	A	A	T	G	del	A
Location	Int 1	Int 1	Int 2	Int 2	Int 2	Int 2	Int 4	Int 5

Abbreviation: Int, intron.

Natural killer (NK) cells survey the immune system through various receptors expressed on their cell surface. Among these receptors are the killer-cell immunoglobulin-like receptors (KIR) that have major histocompatibility complex (MHC) I molecules serving as their ligands. KIR2DL5 is a two-domain receptor variant and is presumed to have inhibitory functions based on the fact that it has immunoreceptor tyrosine-based inhibitory motifs (ITIMs) on its cytoplasmic tail.<sup>1</sup> When the receptor recognizes self-peptide bound to MHC-I molecules, the cytolytic function of the NK cell is inhibited preventing damage to unblemished cells.<sup>2</sup> The KIR2DL5 gene exists in two variants, KIR2DL5A and KIR2DL5B, they show 99.5%–99.7% coding sequence identity and are present at the telomeric half and the centromeric half of the KIR-gene cluster, respectively.<sup>3</sup>

Described here is the identification of a novel KIR2DL5A subtype officially named *KIR2DL5A\*0010104* by the World Health Organization (WHO) Committee for factors of the HLA System, Subcommittee for Killer-cell Immunoglobulin-like Receptors. This new allele was isolated from the DNA of Zimbabwean donors using previously described high-resolution long-range sequencing techniques.<sup>4</sup>

Full-length nucleotide sequences of *KIR2DL5A\*0010104* were compared with that of *KIR2DL5A\*0010101* and we found eight intronic single nucleotide polymorphisms four of which occurred in intron 2 as illustrated in Table 1. The nucleotide sequences of *KIR2DL5A\*0010104* have been deposited into GenBank with the Accession number MG004194 and IPD-KIR database,<sup>5</sup> ID: IWS40002368.

The name *2DL5A\*0010104* has been officially assigned by the WHO Nomenclature Committee in October 2019. This follows the agreed policy that, subject to the conditions stated in the most recent Nomenclature Report,<sup>6</sup> names will be assigned to new sequences as they are identified. Lists of such new names will be published in the following WHO Nomenclature Report.

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## CONFLICT OF INTEREST

The authors have declared no conflicting interests.

## DATA AVAILABILITY STATEMENT

The nucleotide sequences of *KIR2DL5A\*0010104* have been deposited into GenBank with the Accession number MG004194 and IPD-KIR database (5), ID: IWS40002368.

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