

Gene Section

Mini Review

TRD (T cell Receptor Delta)

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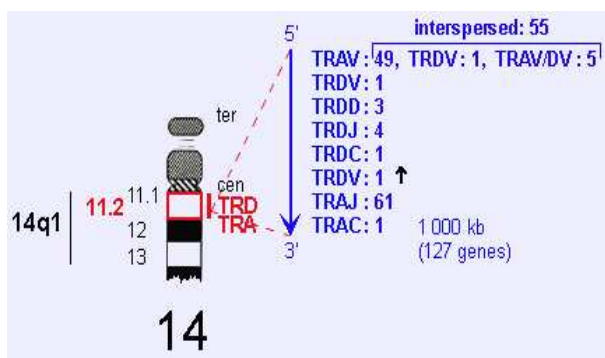
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Identity

HGNC (Hugo): TRD@

Location: 14q11.2



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Note

The TRD locus is embedded in the TRA locus, between the TRAV and TRAJ genes. The orientation of the locus has been determined by the analysis of translocations, involving the TRD locus, in leukemia and lymphoma.

DNA/RNA

Description

The human TRD locus at 14q11.2 comprises a cluster of one TRDV gene (TRDV2), three TRDD segments, and four TRDJ segments, upstream of the unique TRDC gene; another TRDV gene (TRDV3) is localized downstream of the TRDC gene, in inverted orientation of transcription.

This cluster spans 60 kb and is localized inside the TRA locus, between the TRAV genes and the TRAJ segments. One TRDV gene (TRDV1) is localized at 360 kb upstream of the TRDC gene, among the TRAV genes. Five variable genes have been found rearranged to both (D)J segments of the TRD locus and TRAJ segments, and can therefore be used for the synthesis of both delta and alpha chains. These genes are described as TRAV/DV.

The TRDV genes are unique members of different subgroups. All the TRD genes are functional, with the exception of one TRAV/DV, which has been found either functional or as a pseudogene.

Enhancer sequences have been described between the TRDJ3 and the TRDC gene.

