

Gene Section

Mini Review

CD53 (CD53 molecule)

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Identity

Hugo: CD53

Other names: TSPAN25; Tetraspanin-25; Tspan-25; tetraspanin-25; CD53 glycoprotein; CD53 tetraspan antigen; MOX44

Location: 1p13.3

Local order: Telomere-KCNA3--Q8NHC3---CD53---C1orf103---TMEM77---CEPT1---DENND2D-Centromere.

DNA/RNA

Description

Gene size: 26,77 Kbp; 8 exons.

Transcription

Transcript length: 1,567 bps.

Protein

Note: Size: 219 amino acids; 24341 Da; Four transmembrane domains.

Subcellular location: Plasma Membrane; endosomes.

Localisation

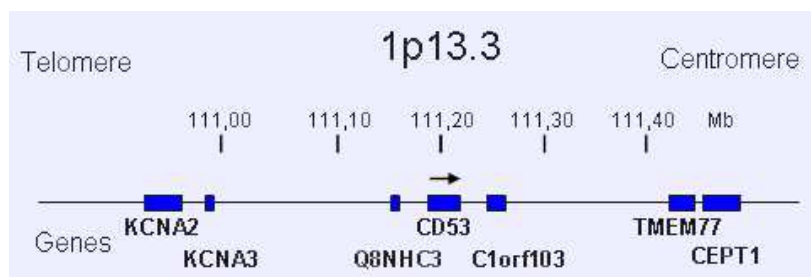
Plasma membrane; endosomes; exosomes.

Function

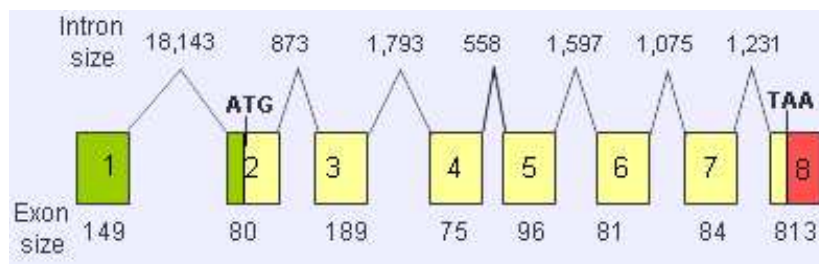
Modifier of signal transduction.

Homology

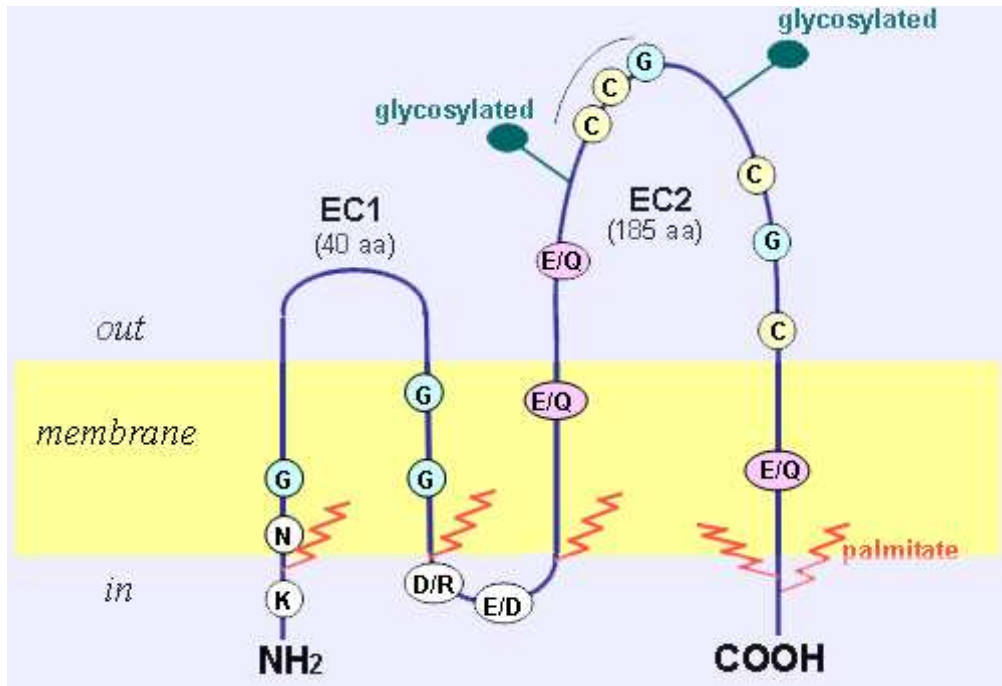
Member of the tetraspanin protein family.



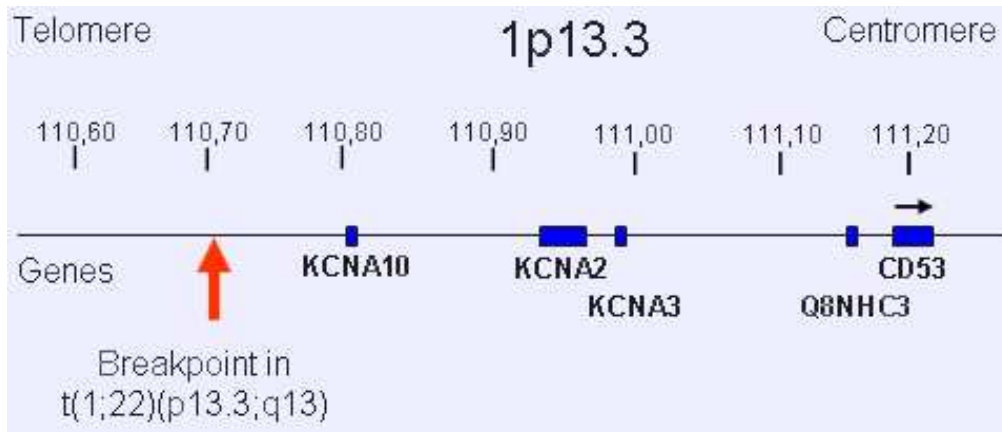
Map of chromosomal region 1p13.3



Exon-Intron structure of human CD53 gene.



The CD53 protein has four transmembrane domains. Several residues are conserved and define the tetraspanin protein family. The protein is glycosylated (green) in its second extracellular loop. Internally the protein is palmitoylated (red lines). EC: extracellular.



Location of breakpoint in chromosome region 1p13.3 in a case of T-ALL with a t(1;22)(p13;q13). The CD53 gene is not structurally altered. It is not known if its level of expression is affected.

Implicated in

T-cell acute lymphoblastic leukemia

Cytogenetics

t(1;22)(p13;q13)

Abnormal Protein

None.

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