

OLIG2

Identity

Other names	RK17 Olg-2 Bhlhb1 RACK17 HGNC:13226 PRKCBP2 BHLHB1
Hugo	OLIG2
Location	21q22.11

DNA/RNA

Note OLIG2 is an essential transcriptional regulator in motoneuron and oligodendrocyte development.

Protein

Description 329 amino acids; 32 kDa; contains 1 basic helix-loop-helix DNA-binding domain (bHLH).
 Expression Olig2 is expressed in the ventral thalamus of developing mice.
 Function Required for oligodendrocyte and motor neuron specification in the spinal cord.

Implicated in

Entity	T-cell lymphoma
Cytogenetics	Translocation t(14;21)(q11.2;q22)
Hybrid/Mutated Gene	T-cell receptor promoter translocated upstream of OLIG2.
Abnormal Protein	none

Entity	Brain cancer
Disease	Oligodendroglioma, astrocytoma , glioblastoma.
Prognosis	variable
Cytogenetics	No known genetic abnormalities in OLIG2.
Hybrid/Mutated Gene	n/a
Oncogenesis	OLIG expression in brain cancer raises possibilities that it could regulate behavior of tumor cell populations but this has not been demonstrated.

External links

	Nomenclature
Hugo	OLIG2
GDB	OLIG2
Entrez_Gene	OLIG2 10215 oligodendrocyte lineage transcription factor 2

Cards

[Atlas](#)
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Genomic and cartography

[GoldenPath](#) [OLIG2 - 21q22.11 chr21:33320163-33323371 + 21q22.11 \(hg17-May_2004\)](#)
[Ensembl](#) [OLIG2 - 21q22.11 \[CytoView\]](#)
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Gene and transcription

[Genbank](#) [AF221520](#) [SRS] [AF221520](#) [ENTREZ]
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Protein : pattern, domain, 3D structure

[SwissProt](#) [Q13516](#) [SRS] [Q13516](#) [EXPASY] [Q13516](#) [INTERPRO]
[Prositate](#) [PS50888 HLH](#) [SRS] [PS50888 HLH](#) [Expasy]
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Polymorphism : SNP, mutations, diseases

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General knowledge

[Family Browser](#) [OLIG2](#) [UCSC Family Browser]
[SOURCE](#) [NM_005806](#)
[SMD](#) [Hs.176977](#)
[SAGE](#) [Hs.176977](#)
[Amigo](#) [function|DNA binding](#)
[Amigo](#) [process|development](#)
[Amigo](#) [component|nucleus](#)
[Amigo](#) [process|regulation of transcription, DNA-dependent](#)
[PubGene](#) [OLIG2](#)

Other databases

Probes
[Probe](#) [OLIG2 Related clones \(RZPD - Berlin\)](#)
PubMed
[PubMed](#) [6 Pubmed reference\(s\) in LocusLink](#)

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Medline [14989603](#)

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URL : <http://www.infobiogen.fr/services/chromcancer/Genes/OLIG2ID236.html>

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