

COX6C (cytochrome c oxidase subunit VIc)

Identity

Other names **Cytochrome c oxidase polypeptide VIc precursor**
 Hugo **COX6C**
 Location **8q22.2**

DNA/RNA

Description The gene spans 15.5 kb; orientation : reverse strand; 4 exons; this cytochrome C oxidase subunit 6c is encoded by the nuclear DNA (some other subunits are encoded by the mitochondrial DNA).

Protein

Description 75 amino acids, 8.8 kDa; contains a transmembrane domain
 Expression wide
 Localisation mitochondria (inner membrane)
 Function subunit of the cytochrome C oxidase (respiratory chain complex of the mitochondria); catalytic activity.

Implicated in

Entity **Uterine fibromyoma**
 Disease The most common benign tumors of the female genital tract.
 Hybrid/Mutated Gene **HMGA2** **HMGA2** exon 3 was found fused to COX6C exon 2 in one case without cytogenetic analysis; HMGA2 (previously named HMGIC), sitting in 12q15, is the most frequently involved gene in uterine leiomyoma.
 Abnormal Protein The 3 N-term DNA binding domains (AT hooks) of HMGA2 is fused to the C-term of COX6C

External links

| | |
|-----------------------------|--|
| | Nomenclature |
| Hugo | COX6C |
| GDB | COX6C |
| Entrez_Gene | COX6C 1345 cytochrome c oxidase subunit VIc |
| | Cards |
| Atlas | COX6CID251 |
| GeneCards | COX6C |
| Ensembl | COX6C |
| CancerGene | COX6C |
| Genatlas | COX6C |
| GeneLynx | COX6C |
| eGenome | COX6C |
| euGene | 1345 |
| | Genomic and cartography |
| GoldenPath | COX6C - 8q22.2 chr8:100959548-100975071 - 8q22.2 (hg17-May_2004) |
| Ensembl | COX6C - 8q22.2 [CytoView] |
| NCBI | Genes Cyto Gene Seq [Map View - NCBI] |

| | |
|--|--|
| OMIM | Disease map [OMIM] |
| HomoloGene | COX6C |
| Gene and transcription | |
| Genbank | AF067636 [SRS] AF067636 [ENTREZ] |
| Genbank | AF067637 [SRS] AF067637 [ENTREZ] |
| Genbank | BC000187 [SRS] BC000187 [ENTREZ] |
| Genbank | BT007007 [SRS] BT007007 [ENTREZ] |
| Genbank | S82616 [SRS] S82616 [ENTREZ] |
| RefSeq | NM_004374 [SRS] NM_004374 [ENTREZ] |
| RefSeq | NT_086743 [SRS] NT_086743 [ENTREZ] |
| AceView | COX6C AceView - NCBI |
| TRASER | COX6C Traser - Stanford |
| Unigene | Hs.351875 [SRS] Hs.351875 [NCBI] HS351875 [spliceNest] |
| Protein : pattern, domain, 3D structure | |
| SwissProt | P09669 [SRS] P09669 [EXPASY] P09669 [INTERPRO] |
| Interpro | IPR004204 COX6C [SRS] IPR004204 COX6C [EBI] |
| CluSTr | P09669 |
| Pfam | PF02937 COX6C [SRS] PF02937 COX6C [Sanger] pfam02937 [NCBI-CDD] |
| Prodom | PD015032 COX6C [INRA-Toulouse] |
| Prodom | P09669 COXH_HUMAN [Domain structure] P09669 COXH_HUMAN [sequences sharing at least 1 domain] |
| Blocks | P09669 |
| Polymorphism : SNP, mutations, diseases | |
| OMIM | 124090 [map] |
| GENECLINICS | 124090 |
| SNP | COX6C [dbSNP-NCBI] |
| SNP | NM_004374 [SNP-NCI] |
| SNP | COX6C [GeneSNPs - Utah] COX6C [SNP - CSHL] COX6C [HGBASE - SRS] |
| General knowledge | |
| Family Browser | COX6C [UCSC Family Browser] |
| SOURCE | NM_004374 |
| SMD | Hs.351875 |
| SAGE | Hs.351875 |
| Enzyme | 1.9.3.1 [Enzyme-SRS] 1.9.3.1 [Brenda-SRS] 1.9.3.1 [KEGG] 1.9.3.1 [WIT] |
| Amigo | function cytochrome-c oxidase activity |
| Amigo | process electron transport |
| Amigo | component inner membrane |
| Amigo | component integral to membrane |
| Amigo | component mitochondrion |
| Amigo | function oxidoreductase activity |
| KEGG | Oxidative Phosphorylation |
| PubGene | COX6C |
| Other databases | |
| Probes | |
| Probe | COX6C Related clones (RZPD - Berlin) |
| PubMed | |
| PubMed | 5 Pubmed reference(s) in LocusLink |

Bibliography

Structural organization and transcription regulation of nuclear genes encoding the mammalian cytochrome c oxidase complex.

Lenka N, Vijayasarathy C, Mullick J, Avadhani NG.
Prog Nucleic Acid Res Mol Biol. 1998; 61: 309-344.
Medline [9752724](#)

Novel gene fusion of COX6C at 8q22-23 to HMGIC in a uterine leiomyoma.

Kurose K, Mine N, Doi D, Ota Y, Yoneyama K, Konoshi H, Araki T, Emi M.
Genes Chromosomes Cancer 2000; 27: 303-307.
Medline [10679920](#)

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[BiblioGene - INIST](#)

Contributor(s)

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Citation

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URL : <http://www.infobiogen.fr/services/chromcancer/Genes/COX6CID251.html>

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