নত Id Date Databa	Jatabase	roteinentry Id Header	Pro	otein Organism	Refe	erence							Ger	netics Classification	Keywords	Feature	Summary	Sequence
se		Uid Access Enti	ry Date Seq-rev Txt-rev Date Date	Name Source	Common Formal Refe	Refinfo Authors Cit. Author Entry	Type Content So	Year Pages Title	Acci refs	Candon September 1 September 1 September 1 September 2	r Xrefs Status Exp-source Xref Db Uid	Contents Note Entry		Superfamily Entry	Keyword Entry	Feature- type Description	Seq- spec Status Type Statu	
Release Protein	in Information Resource (PIR)* National Biomedical Research Foundation	CCHU CCHU A31 A05 I55	764 24-Apr-1984 30-Sep- 1991 [1991]	cytochrome c human [validated]	man Homo sapiens	A31764 Evans, M.J. Scarpulla, R.C.	8!	1988 9625-9629 The human somatic cytochrome c gene: two classes of processed pseudogenes demarcate a period of rapid molecular evolution.	MUID 89071748 E	EVA A31764 DNA 1-	05 GB M22877 NID g181241 PIDN AAA35732.			57/1 <u>cytochrome c</u> cytochrome c homology	acetylated amino end chromoprotein	CYC domain cytochrome	e c 2-105 experimental 105 complete 2 c homology 5-99 amino end (Gly) 2 experimental form)	MGDVEKGKKIFIMKCSQCHTVEKGGKHKTGPNLHGLFGRKTGQAPGYSYTAANKNKGIIW GEDTLMEYLENPKKYIPGTKMIFVGIKKKEERADLIAYLKKATNE
Japan Interna (JIPID) Proteir Umwelt und G	3900 Reservoir Road, N.W., Washington, DC 20007, USA Japan International Protein Munich Information Center for Information Database (JIPID) Protein Sequences (MIPS) Amakubo 1-16-1 GSF-Forschungszentrum f. Umwelt und Gesundheit Tsukuba 305-0005, Japan am Max-Planck-Instut f. Biochemie Am Klopferspitz 18, D-82152 Martinsried, FRG This database may be redistributed without prior consent, provided that this notice be given to each user and that the words "Derived from" shall precede this notice if the database has been altered by the redistributor. Copyright 2000, PIR-International.	AOO	0001		-	A05676 Matsubara, H. Smith, E.L.	23	238 1963 2732-2753 Human heart cytochrome c. Chymotryptic peptides, tryptic peptides, and the complete amino acid sequence.	N	MATS A05676 protein 2-	1 1				electron transfer heme iron metalloprotein	site	form) 15,18 experimental (His, Met) (axial 19,81 predicted	
This da be give the dat					-	A00001 Matsubara,	22	237 1962 3575-3576 The amino acid sequence of human heart cytochrome c.		10 10	0; - -	66-1 eu is fou	nd in 10% of the molecules in pooled protein		mitochondrion oxidative phosphorylation	site ligarius)		
*PIR is	is a registered mark of NBRF.					H. Smith, E.L.	10	103 1988 954-961 Construction of a human cytochrome c gene and its functional expression in Saccharomyces cerevisiae.	MUID 89008207 R	RES 155192 mRNA 78	NID @2007401	00 224 15 104	d in 10% of the filolocales in posted process		polymorphism respiratory chain			
						Shibano, Y. Amachi, T. Yoshizumi, H.					PIDN BAA00187. 1 PID g219557							
		CCCZ CCCZ	17-Mar- 17-Mar- 03-Mar- 1987 1987 2000	cytochrome c chimpanze	ee chimpanzee Pan troglodytes	H. Matsubara, H. A94601 A94455 Needleman,	submission submitted to the Atlas other unpublished results, 1966, cited by Margoliash, E., and Fitch, W.M., Ann. N.Y.	1968	October N	NEE A00002 protein 1-	04	annotation		cytochrome c	acetylated amino end	CYC domain cytochrome modified- acetylated a	e c homology 4-98 104 complete tenta amino end (Gly) 1 predicted	dive GDVEKGKKIFIMKCSQCHTVEKGGKHKTGPNLHGLFGRKTGQAPGYSYTAANKNKGIIWG EDTLMEYLENPKKYIPGTKMIFVGIKKKEERADLIAYLKKATNE
						S.B. Margoliash, E.	Acad. Sci. 151, 359-381					compositions of chymotryptic peptides		homology	chromoprotein electron transfer heme	site binding- heme (Cys)	(His, Met) (axial 18,80 predicted	
															iron metalloprotein mitochondrion oxidative	site lligands)		
		CCMQR CCMQR	17-Mar- 17-Mar- 03-Mar- 1987 1987 2000	cytochrome c rhesus		A00003 Rothfus, J.	20	240 1965 4277-4283 Amino acid sequence of rhesus monkey heart cytochrome c.	MUID 66045191 R	ROT A00003 protein 1-	04	compositions of chymotryptic		cytochrome c	phosphorylation respiratory chain acetylated	CYC domain cytochrome	e c homology 4-98 amino end (Gly) 1 experimental 104 complete tenta	GDVEKGKKIFIMKCSOCHTVEKGGKHKTGPNLHGLFGRKTGOAPGYSYTAANKNKGITWG
			1987 1987 2000	macaque	macaque	Smith, E.L.						sequences of residues 55-61 and 68-70		cytochrome c homology	amino end chromoprotein electron transfer	site binding- heme (Cys)	amino end (Gly) 1 experimental (I (covalent) 14,17 predicted (His, Met) (axial 18,80 predicted	EDTLMEYLENPKKYIPGTKMIFVGIKKKEERADLIAYLKKATNE
															iron metalloprotein mitochondrion oxidative	site ligands)	(His, Met) (axial 18,80 predicted	
		CCMKB CCMKB	17-Dec- 17-Dec 02-Mar	cytochrome	spider Ateles sp	A00004	other unpublished results, cited by Shelnutt, J.A., Rousseau, D.L., Dethmers, J.K., and	1981		MAR A00004 protein 1-	04			ovtochromo o	phosphorylation respiratory	CYC domain	e c homology 4.98	CDVEKCKBIEIWKCZOCHTVEKCCKHKLCDVII FICI ECDNTCOVZCETATE WINWINGTIMO
		COVINY	17-Dec- 1982 17-Dec- 1982 2000 03-Mar- 2000	spider monkey	monkey		other unpublished results, cited by Shelmutt, J.A., Rousseau, D.L., Dethmers, J.K., and Margoliash, E., Biochemistry 20, 6485-6497		N	protein 1-				cytochrome c cytochrome c homology	acetylated amino end chromoprotein electron transfer	binding- heme (Cys)	(covalent) 14,17 predicted	GDVFKGKRIFIMKCSOCHTVEKGGKHKTGPNLHGLFGRKTGOASGFTYTEANKNKGIIWG EDTLMEYLENPKKYIPGTKMIFVGIKKKEERADLIAYLKKATNE
															iron metalloprotein	binding- site ligands)	(His, Met) (axial 18,80 predicted	
															mitochondrion oxidative phosphorylation respiratory chain			
		CCMS CCMS A23 A04 A00	30-Sep- 1604 1009 1990 1991 28-Jul-2000 [cytochrome c mouse [validated]	house Mus musculus mouse	A23057 Limbach, K. J. Wu, R.	1;	13 1985 617-630 Characterization of a mouse somatic cytochrome c gene and three cytochrome c pseudogenes.			05 EMBL X01756 NID	3/c		57/1 <u>cytochrome c</u> cytochrome c homology	chain acetylated amino end chromoprotein electron	modified- site (in mature	e c 2-105 experimental c homology 5-99 experimental experimental 2 experimental form) 2 experimental	MGDVEKGKKIFVQKCAQCHTVEKGGKHKTGPNLHGLFGRKTGQAAGFSYTDANKNKGITW GEDTLMEYLENPKKYIPGTKMIFAGIKKKGERADLIAYLKKATNE
					-	A04604 Carlson, S. S. Mross, G.A.	16	16 1977 1437-1442 Primary structure of mouse, rat, and guinea pig cytochrome c.	MUID 77134768 C	CAR A04604 protein 2-	PID g50619 strain BALB/c	3/c			transfer heme iron metalloprotein	binding- site	(His, Met) (axial 19,81 predicted	
						Wilson, A.C. Mead, R.T. Wolin, L.D. Bowers, S.									mitochondrion oxidative phosphorylation respiratory			
						F. Foley, N.T. Muijsers, A.									chain			
		CCRT CCRT A04	1605 31-Dec- 30-Sep- 28-Jul-2000 c 1990 1991 [cytochrome c rat [validated]	Norway rat Rattus norvegicus	A04605 Scarpulla, R.C.	25	256 1981 6480-6486 Isolation and structure of a rat cytochrome c gene.	MUID 81215609 S	SCA A04605 DNA 1-	GB M28216			57/1 <u>cytochrome c</u> cytochrome c	blocked amino	CYC domain cytochrome	e c 2-105 experimental 105 complete c homology 5-99	MGDVEKGKKIFVOKCAQCHTVEKGGKHKTGPNLHGLFGRKTGQAAGFSYTDANKNKGITW GEDTLMEYLENPKKYIPGTKMIFAGIKKKGERADLIAYLKKATNE
		AOC	1009			Agge, K.M. Wu, R.		042 1000 4701 4707 Structure of the stru	MUID 88198250 V	VID. COOK (C	NID g550511 PIDN AAA21711. 1 PID g203699			homology	end chromoprotein electron transfer heme	modified- blocked am site mature forr	ino end (Gly) (in 2 experimental	
						A28160 Virbasius, J. V. Scarpulla, R.C.	26	263 1988 6791-6796 Structure and expression of rodent genes encoding the testis-specific cytochrome c. Differences in gene structure and evolution between somatic and testicular variants.	MUTU 88198250 V	VIR C28160 mRNA 1-	05 GB M20622 NID g203722 PIDN AAA41014. 1 PID g203723				iron metalloprotein mitochondrion oxidative	binding- site ligands)	(His, Met) (axial 19,81 predicted	
					-	A04604 Carlson, S. S. Mross, G.A. Wilson, A.C.	16	16 1977 1437-1442 Primary structure of mouse, rat, and guinea pig cytochrome c.	MUID 77134768		, 10 yeures		ing, compositional analysis, and partial sequencing indicate that rat is identical with that of mouse		phosphorylation respiratory chain			
						Mross, G.A. Wilson, A.C. Mead, R.T. Wolin, L.D. Bowers, S.												
						F. Foley, N.T. Muijsers, A. O. Margoliash,												
		CCRB CCRB	13-Jul-1981 13-Jul-1981 28-Jul-2000 c	cytochrome c rabbit [validated]	domestic Oryctolagus rabbit cuniculus	A00009 Needleman, S.B. Margoliash,	24	241 1966 853-863 Rabbit heart cytochrome c.	MUID 66093127 N	NEE A00009 protein 1-	04			cytochrome c cytochrome c homology	acetylated amino end chromoprotein	site acetylated a	e c homology 4-98 amino end (Gly) 1 experimental 104 complete	GDVEKGKKIFVOKCAQCHTVEKGGKHKTGPNLHGLFGRKTGOAVGFSYTDANKNKGITWG EDTLMEYLENPKKYIPGTKMIFAGIKKKDERADLIAYLKKATNE
						E.									chromoprotein electron transfer heme iron	binding- heme (Cys)	(His, Met) (axial 18,80 predicted 18,80 predicted	
															metalloprotein mitochondrion oxidative phosphorylation			
		CCGW CCGW A04	1608 31-Dec- 31-Dec- 1990 1	cytochrome c guanaco [validated]	guanaco Lama guanicoe	C .	16	16 1977 68-72 Complete amino acid sequence of guanaco (Lama guanicoe) cytochrome c.	MUID 77087753 N	NIE A04608 protein 1-	04			cytochrome c cytochrome c homology	respiratory chain acetylated amino end	modified- acetylated a	amino end (Giy) 1 experimental	GDVEKGKKIFVQKCAQCHTVEKGGKHKTGPNLHGLFGRKTGQAVGFSYTDANKNKGITWG EETLMEYLENPKKYIPGTKMIFAGIKKKGERADLIAYLKKATNE
						E. Fitch, W.M.								nomology	chromoprotein electron transfer heme	cito	(His, Met) (axial 18,80 predicted 14,17	
															metalloprotein mitochondrion oxidative	ligands)		
		CCCM CCCM A04	1607 31-Dec- 31-Dec- 03-Mar- 009 1990 2000	cytochrome c Arabian	Arabian Camelus camel dromedarius	A04607 Sokolovsky, M.	1	11 1972 145-149 Primary structure of cytochrome c from the camel, Camelus dromedarius.	MUID 72096652 S	SOK A04607 protein 1-	04			cytochrome c	phosphorylation respiratory chain acetylated amino end	CYC domain cytochrome	e c homology 4-98 amino end (Gly) 1 experimental 104 complete	GDVEKGKKIFVOKCAOCHTVEKGGKHKTGPNLHGLFGRKTGQAVGFSYTDANKNKGITWG EETLMEYLENPKKYIPGTKMIFAGIKKKGERADLIAYLKKATNE
		AUU	2000	Carrier		Moldovan, M.								cytochrome c homology	electron transfer	binding-heme (Cys)	(Covalent) 14,17 predicted (His, Met) (axial 18,80 predicted	
															iron metalloprotein mitochondrion oxidative	site ligands)		
		CCWHC CCWHC A04	1606 31-Dec- 31-Dec- 03-Mar- 009 1990 2000	cytochrome c California	California Eschrichtius	A04606 Goldstone,	20	241 1966 4480-4486 Amino acid sequence of whale heart cytochrome c.	MUID 67041932 G	GOL A04606 protein 1-	04			cytochrome c	phosphorylation respiratory chain blocked amino	CYC domain cytochrome	e c homology 4-98 104 complete	GDVEKGKKIFVOKCAOCHTVEKGGKHKTGPNLHGLFGRKTGQAVGFSYTDANKNKGITWG EETLMEYLENPKKYIPGTKMIFAGIKKKGERADLIAYLKKATNE
		AOC	1990 1990 2000	gray whale	e gray whale robustus, Eschrichtius gibbosus	A. Smith, E.L.				, 23				cytochrome c cytochrome c homology	end chromoprotein electron transfer	site (probably a binding- heme (Cys)	icetylated) (covalent) 14,17 predicted	EETLMEYLENPKKYIPGTKMIFAGIKKKGERADLIAYLKKATNE
															heme iron metalloprotein	binding- site ligands)	(His, Met) (axial 18,80 predicted	
															mitochondrion oxidative phosphorylation respiratory chain			
		CCPG CCPG	17-Mar- 1987 1987 28-Jul-2000 c	cytochrome c pig [validated]	domestic Sus scrofa pig domestica	A90743 Stewart, J. W. Margoliash, E.	43	13 1965 1187-1206 The primary structure of the cytochrome c from various organs of the hog.	MUID 66072936 S	STE A00007 protein 1-	04			cytochrome c cytochrome c homology	acetylated amino end chromoprotein electron	site binding- heme (Cys)	amino end (Gly) 1 experimental 104 complete	GDVEKGKKIFVQKCAQCHTVEKGGKHKTGPNLHGLFGRKTGQAPGFSYTDANKNKGITWG EETLMEYLENPKKYIPGTKMIFAGIKKKGEREDLIAYLKKATNE
															transfer heme iron metalloprotein	-14-	(His, Met) (axial 18,80 predicted	
															mitochondrion oxidative phosphorylation respiratory			
		CCBO CCBO A92	0022 31-Mar- 1992 1992 0000 0	cytochrome c bovine	cattle Bos primigenius taurus	A92022 Nakashima, T. Higa, H. Matsubara,	24	241 1966 1166-1177 The amino acid sequence of bovine heart cytochrome c.	MUID 66132521 N	NAK A92022 protein 1-	04				chain			
						Matsubara, H. Benson, A. Yasunobu,												
						K.T. A61297 Tsunasawa,												