

Release	70.03	Database	PROTEIN SEQUENCE DATABASE of PIR-International Release 70.03, November 09, 2001 262525 sequences, 89717977 residues Protein Information Resource (PIR)* National Biomedical Research Foundation 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-Institut 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. *PIR is a registered mark of NBRF.
Id	PIR-PSD		
Date	09-Nov-2001		

Proteinentry

• Id CCHU		Protein	
Header		Name	cytochrome c [validated]
Uid	CCHU	Organism	
Accession	Entry	Source	human
	A31764	Common	man
	A05676	Formal	Homo sapiens
	I55192		
	A00001		
Created Date	24-Apr-1984		
Seq-rev Date	30-Sep-1991		
Txt-rev Date	28-Jul-2000		

Reference

• Refinfo		Accinfo	
Refid	A31764	Label	EVA
Authors		Accession	A31764
Author	Entry	Mol-type	DNA
	Evans, M.J.	Seq-spec	1-105
	Scarpulla, R.C.	Xrefs	
Citation		Xref Db	Uid
Type		GB	M22877
Content		NID	q181241
Volume	85	PIDN	AAA35732.1
Year	1988	PID	q181242
Pages	9625-9629	Status	
Title	The human somatic cytochrome c gene: two classes of processed pseudogenes demarcate a period of rapid molecular evolution.	Exp-source	
Xrefs		Contents	Entry
Xref		Note	
Db	MUID		
Uid	89071748		
Month			
• Refinfo		Accinfo	
Refid	A05676	Label	MATS
Authors		Accession	A05676
Author	Entry	Mol-type	protein
	Matsubara, H.	Seq-spec	2-28:29-46:47-100:101-105
	Smith, E.L.	Xrefs	
Citation		Status	
Type		Exp-source	
Content		Contents	Entry
Volume	238	Note	
Year	1963		
Pages	2732-2753		
Title	Human heart cytochrome c. Chymotryptic peptides, tryptic peptides, and the complete amino acid sequence.		
Xrefs			
Month			

Refinfo		Accinfo		
Refid	A00001	Contents	Entry	
Authors				
Author	Entry	Note	66-Leu is found in 10% of the molecules in pooled protein	
	Matsubara, H.			
	Smith, E.L.			
Citation				
Type				
Content				
Volume	237			
Year	1962			
Pages	3575-3576			
Title	The amino acid sequence of human heart cytochrome c.			
Xrefs				
Month				

Refinfo		Accinfo		
Refid	I55192	Label	RES	
Authors		Accession	I55192	
Author	Entry	Mol-type	mRNA	
	Tanaka, Y.	Seq-spec	78-105	
	Ashikari, T.	Xrefs		
	Shibano, Y.	Xref	Db	Uid
	Amachi, T.		GB	D00265
	Yoshizumi, H.		NID	q2897691
	Matsubara, H.		PIDN	BAA00187.1
Citation		PID	q219557	
Type		Status	translated from GB/EMBL/DBJ	
Content		Exp-source		
Volume	103	Contents	Entry	
Year	1988			
Pages	954-961	Note		
Title	Construction of a human cytochrome c gene and its functional expression in <i>Saccharomyces cerevisiae</i> .			
Xrefs				
Xref	Db	MUID		
	Uid	89008207		
	Month			

Genetics		Keywords	
Introns	57/1	Keyword	Entry
Classification			acetylated amino end
Superfamily	Entry		chromoprotein
	cytochrome c		electron transfer
	cytochrome c homology		heme
			iron
	metalloprotein		
	mitochondrion		
	oxidative phosphorylation		
	polymorphism		
	respiratory chain		

Feature	Label	Feature-type	Description	Seq-spec	Status
	MAT	product	cytochrome c	2-105	experimental
	CYC	domain	cytochrome c homology	5-99	
		modified-site	acetylated amino end (Gly) (in mature form)	2	experimental
		binding-site	heme (Cys) (covalent)	15,18	experimental
		binding-site	heme iron (His, Met) (axial ligands)	19,81	predicted

Summary			Sequence	MGDVEKGKKIFIMKCSQCHTVEKGGKHKTGPNLHGLFGRKTGOAPG YSYTAANKNGIHW GEDTLMEYLENPKKYIPGTKMIFVGIIKKKEERADLIAYLKKATNE
Length	105			
Type	complete			
Status				

Id		CCCZ		Protein					
Header				Name				cytochrome c	
UId		CCCZ		Organism					
Accession		Entry		Source		chimpanzee			
				Common		chimpanzee			
Created Date		17-Mar-1987		Formal		Pan troglodytes			
Seq-rev Date		17-Mar-1987							
Txt-rev Date		03-Mar-2000							
Reference									
• Refinfo									
Refid				A94601		Accinfo			
Authors						Label		NEE	
Author		Entry		Accession		A00002			
				Mol-type		protein			
				Seq-spec		1-104			
Citation						Xrefs			
Type		submission		Status					
Content		submitted to the Atlas		Exp-source					
Volume				Contents		Entry			
Year		1968		Note					
Pages									
Title									
Xrefs									
Month		October							
• Refinfo									
Refid				A94455		Accinfo			
Authors						Contents		Entry	
Author		Entry		annotation					
				Needleman, S.B.		compositions of chymotryptic peptides			
				Margoliash, E.		Note			
Citation									
Type		other							
Content		unpublished results, 1966, cited by Margoliash, E., and Fitch, W.M., Ann. N.Y. Acad. Sci. 151, 359-381							
Volume									
Year		1968							
Pages									
Title									
Xrefs									
Month									
Genetics					Keywords				
Classification					Keyword				
Superfamily		Entry		Entry					
		cytochrome c		acetylated amino end					
		cytochrome c homology		chromoprotein					
				electron transfer					
				heme					
				iron					
				metalloprotein					
				mitochondrion					
				oxidative phosphorylation					
				respiratory chain					
Feature		Label	Feature-type	Description			Seq-spec	Status	
		CYC	domain	cytochrome c homology			4-98		
			modified-site	acetylated amino end (Gly)			1	predicted	
			binding-site	heme (Cys) (covalent)			14,17	predicted	
			binding-site	heme iron (His, Met) (axial ligands)			18,80	predicted	
Summary					Sequence				
Length		104		GDVEKGKKIFIMKCSQCHTVEKGGKHKTGPNLHGLFGRKTGOAPGYS					
Type		complete		YTAANKNKGIWG					
Status		tentative		EDTLMEYLENPKYIPGTMIFVGIIKKKEERADLIAYLKKAATNE					

Id		CCMQR		Protein		
Header				Name		
				cytochrome c		
Uid		CCMQR		Organism		
Accession		Entry		Source		
				rhesus macaque		
				Common		
				rhesus macaque		
Created Date		17-Mar-1987		Formal		
				Macaca mulatta		
Seq-rev Date		17-Mar-1987				
Txt-rev Date		03-Mar-2000				
Reference						
• Refinfo				Accinfo		
Refid		A00003		Label		
				ROT		
Authors				Accession		
				A00003		
Author		Entry		Mol-type		
		Rothfus, J.A.		protein		
		Smith, E.L.		Seq-spec		
				1-104		
Citation				Xrefs		
Type				Status		
Content				Exp-source		
Volume		240		Contents		
				Entry		
Year		1965		compositions of chymotryptic peptides		
Pages		4277-4283		sequences of residues 55-61 and 68-70		
Title		Amino acid sequence of rhesus monkey heart cytochrome c.		Note		
Xrefs						
Xref						
		Db		MUID		
		Uid		66045191		
Month						
Genetics				Keywords		
Classification				Keyword		
Superfamily		Entry		Entry		
		cytochrome c		acetylated amino end		
		cytochrome c homology		chromoprotein		
				electron transfer		
				heme		
				iron		
				metalloprotein		
				mitochondrion		
				oxidative phosphorylation		
				respiratory chain		
Feature		Label	Feature-type	Description	Seq-spec	Status
		CYC	domain	cytochrome c homology	4-98	
			modified-site	acetylated amino end (Gly)	1	experimental
			binding-site	heme (Cys) (covalent)	14,17	predicted
			binding-site	heme iron (His, Met) (axial ligands)	18,80	predicted
Summary				Sequence		
Length		104		GDVEKGKKIFIMKCSQCHTVEKGGKHKTGPNLHGLFGRKTGOAPGYS		
Type		complete		YTAANKNKGITWG		
Status		tentative		EDTLMEYLENPKKIYPGTMIFVGIIKKKEERADLIAYLKKATNE		

Id		CCMKP		Protein			
Header				Name cytochrome c			
UId		CCMKP		Organism			
Accession		Entry		Source		spider monkey	
				Common		spider monkey	
Created Date		17-Dec-1982		Formal		Ateles sp.	
Seq-rev Date		17-Dec-1982					
Txt-rev Date		03-Mar-2000					
Reference							
• Refinfo				Accinfo			
Refid		A00004		Label		MAR	
Authors				Accession		A00004	
Author		Entry		Mol-type		protein	
				Seq-spec		1-104	
Citation				Xrefs			
Type		other		Status			
Content		unpublished results, cited by Shelnutt, J.A., Rousseau, D. L., Dethmers, J.K., and Margoliash, E., Biochemistry 20, 6485-6497		Exp-source			
Volume				Contents		Entry	
Year		1981		Note			
Pages							
Title							
Xrefs							
Month							
Genetics				Keywords			
Classification				Keyword Entry			
Superfamily		Entry		acetylated amino end			
		cytochrome c		chromoprotein			
		cytochrome c homology		electron transfer			
				heme			
				iron			
				metalloprotein			
				mitochondrion			
				oxidative phosphorylation			
				respiratory chain			
Feature		Label	Feature-type	Description	Seq-spec	Status	
		CYC	domain	cytochrome c homology	4-98		
			modified-site	acetylated amino end (Gly)	1	predicted	
			binding-site	heme (Cys) (covalent)	14,17	predicted	
			binding-site	heme iron (His, Met) (axial ligands)	18,80	predicted	
Summary				Sequence		GDVFKGKRIFIMKCSQCHTVEKGGKHKTGPNLHGLFGRKTGOASGFT	
Length		104				YTEANKNGIHWG	
Type		complete				EDTLMEYLENPKKYIPGTMIFVGIKKKEERADLIAYLKATNE	
Status							
• Id		CCMS		Protein			
Header				Name cytochrome c [validated]			
UId		CCMS		Organism			
Accession		Entry		Source		mouse	
		A23057		Common		house mouse	
		A04604		Formal		Mus musculus	
		A00009					
Created Date		31-Dec-1990					
Seq-rev Date		30-Sep-1991					
Txt-rev Date		28-Jul-2000					

Reference					
Refinfo		Accinfo			
Refid	A23057	Label	LIM		
Authors		Accession	A23057		
Author	Entry	Mol-type	DNA		
	Limbach, K.J.	Seq-spec	1-105		
	Wu, R.	Xrefs			
Citation		Xref	Db		
Type		EMBL	X01756		
Content		NID	g50618		
Volume	13	PIDN	CAA25899.1		
Year	1985	PID	g50619		
Pages	617-630	Status			
Title	Characterization of a mouse somatic cytochrome c gene and three cytochrome c pseudogenes.				
Xrefs		Exp-source	strain BALB/c		
Xref		Contents	Entry		
Db	MUID	Note			
Uid	85215501				
Month					
Refinfo		Accinfo			
Refid	A04604	Label	CAR		
Authors		Accession	A04604		
Author	Entry	Mol-type	protein		
	Carlson, S.S.	Seq-spec	2-105		
	Mross, G.A.	Xrefs			
	Wilson, A.C.	Status			
	Mead, R.T.	Exp-source	strain BALB/c		
	Wolin, L.D.	Contents	Entry		
	Bowers, S.F.	Note			
	Foley, N.T.				
	Muijsers, A.O.				
	Margoliash, E.				
Citation					
Type					
Content					
Volume	16				
Year	1977				
Pages	1437-1442				
Title	Primary structure of mouse, rat, and guinea pig cytochrome c.				
Xrefs					
Xref					
Db	MUID				
Uid	77134768				
Month					
Genetics		Keywords			
Introns	57/1	Keyword	Entry		
Classification			acetylated amino end		
Superfamily	Entry		chromoprotein		
	cytochrome c		electron transfer		
	cytochrome c homology		heme		
			iron		
			metalloprotein		
			mitochondrion		
			oxidative phosphorylation		
			respiratory chain		
Feature	Label	Feature-type	Description	Seq-spec	Status
	MAT	product	cytochrome c	2-105	experimental
	CYC	domain	cytochrome c homology	5-99	
		modified-site	acetylated amino end (Gly) (in mature form)	2	experimental
		binding-site	heme (Cys) (covalent)	15,18	experimental
		binding-site	heme iron (His, Met) (axial ligands)	19,81	predicted
Summary				Sequence	MGDVEKGKKIFVQKCAOCHTVKEGGKHKTGPNLHGLFGRKTGQAAG
Length	105				FSYTDANKNKGITW
Type	complete				GEDTLMEYLENPKKYPGTMKIFAGIKKKGERADLIAYLKKTATNE
Status					
Id	CCRT			Protein	

Header		Name cytochrome c [validated]	
Uid	CCRT	Organism	
Accession	Entry	Source	rat
	A04605	Common	Norway rat
	C28160	Formal	Rattus norvegicus
	A00009		
Created Date	31-Dec-1990		
Seq-rev Date	30-Sep-1991		
Txt-rev Date	28-Jul-2000		

Reference									
• Refinfo					Accinfo				
Refid A04605					Label SCA				
Authors					Accession A04605				
Author Entry					Mol-type DNA				
Scarpulla, R.C.					Seq-spec 1-105				
Agne, K.M.					Xrefs				
Wu, R.					Xref Db Uid				
Citation					GB K00750				
Type					GB M28216				
Content					NID g550511				
Volume 256					PIDN AAA21711.1				
Year 1981					PID q203699				
Pages 6480-6486					Status				
Title Isolation and structure of a rat cytochrome c gene.					Exp-source				
Xrefs					Contents Entry				
Xref					Note				
Db MUID									
Uid 81215609									
Month									
• Refinfo					Accinfo				
Refid A28160					Label VIR				
Authors					Accession C28160				
Author Entry					Mol-type mRNA				
Virbasius, J.V.					Seq-spec 1-105				
Scarpulla, R.C.					Xrefs				
Citation					Xref Db Uid				
Type					GB M20622				
Content					NID q203722				
Volume 263					PIDN AAA41014.1				
Year 1988					PID q203723				
Pages 6791-6796					Status				
Title Structure and expression of rodent genes encoding the testis-specific cytochrome c. Differences in gene structure and evolution between somatic and testicular variants.					Exp-source				
Xrefs					Contents Entry				
Xref					Note				
Db MUID									
Uid 88198250									
Month									
• Refinfo					Accinfo				
Refid A04604					Contents Entry				
Authors					Note				
Author Entry					peptide mapping, compositional analysis, and partial sequencing indicate that rat cytochrome c is identical with that of mouse				
Carlson, S.S.									
Mross, G.A.									
Wilson, A.C.									
Mead, R.T.									
Wolin, L.D.									
Bowers, S.F.									
Foley, N.T.									
Muijsers, A.O.									
Margoliash, E.									
Citation									
Type									
Content									
Volume 16									
Year 1977									
Pages 1437-1442									
Title Primary structure of mouse, rat, and guinea pig cytochrome c.									
Xrefs									
Xref									
Db MUID									
Uid 77134768									
Month									

Genetics				Keywords				
Introns 57/1				Keyword	Entry			
Classification					blocked amino end			
Superfamily	Entry				chromoprotein			
	cytochrome c				electron transfer			
	cytochrome c homology				heme			
					iron			
			metalloprotein					
			mitochondrion					
			oxidative phosphorylation					
			respiratory chain					
Feature	Label	Feature-type	Description		Seq-spec	Status		
	MAT	product	cytochrome c		2-105	experimental		
	CYC	domain	cytochrome c homology		5-99			
		modified-site	blocked amino end (Gly) (in mature form) (probably acetylated)		2	experimental		
		binding-site	heme (Cys) (covalent)		15,18	experimental		
		binding-site	heme iron (His, Met) (axial ligands)		19,81	predicted		
Summary				Sequence	MGDVEKGKKIFVQKCAQCHTVEKGGKHKTGPNLHGLFGRKTGQAAG			
Length	105				FSYTDANKNKGITW			
Type	complete				GEDTLMEYLENPKKYIPGTMKIFAGIKKKGERADLIAYLKATNE			
Status								
Id CCRB				Protein				
Header				Name cytochrome c [validated]				
Uid	CCRB			Organism				
Accession	Entry			Source	rabbit			
				Common	domestic rabbit			
Created Date	13-Jul-1981			Formal	Oryctolagus cuniculus			
Seq-rev Date	13-Jul-1981							
Txt-rev Date	28-Jul-2000							
Reference								
• Refinfo				Accinfo				
Refid	A00009			Label	NEE			
Authors				Accession	A00009			
Author	Entry			Mol-type	protein			
	Needleman, S.B.			Seq-spec	1-104			
	Margoliash, E.			Xrefs				
Citation				Status				
Type				Exp-source				
Content				Contents	Entry			
Volume	241							
Year	1966			Note				
Pages	853-863							
Title	Rabbit heart cytochrome c.							
Xrefs								
Xref								
Db	MUID							
Uid	66093127							
Month								
Genetics				Keywords				
Classification				Keyword	Entry			
Superfamily	Entry				acetylated amino end			
	cytochrome c				chromoprotein			
	cytochrome c homology				electron transfer			
					heme			
			iron					
			metalloprotein					
			mitochondrion					
			oxidative phosphorylation					
			respiratory chain					
Feature	Label	Feature-type	Description		Seq-spec	Status		
	CYC	domain	cytochrome c homology		4-98			
		modified-site	acetylated amino end (Gly)		1	experimental		
		binding-site	heme (Cys) (covalent)		14,17	experimental		
		binding-site	heme iron (His, Met) (axial ligands)		18,80	predicted		
Summary				Sequence	GDVEKGKKIFVQKCAQCHTVEKGGKHKTGPNLHGLFGRKTGQAVGF			
Length	104				SYTDANKNKGITWG			
Type	complete				EDTLMEYLENPKKYIPGTMKIFAGIKKKDERADLIAYLKATNE			
Status								

Id		CCGW		Protein		
Header				Name cytochrome c [validated]		
UId		CCGW		Organism		
Accession		Entry		Source guanaco		
		A04608		Common guanaco		
		A00009		Formal Lama guanicoe		
Created Date		31-Dec-1990				
Seq-rev Date		31-Dec-1990				
Txt-rev Date		28-Jul-2000				
Reference						
• Refinfo			Accinfo			
Refid		A04608		Label NIE		
Authors				Accession A04608		
Author		Entry		Mol-type protein		
		Niece, R.L.		Seq-spec 1-104		
		Margoliash, E.		Xrefs		
		Fitch, W.M.		Status		
Citation				Exp-source		
Type				Contents Entry		
Content						
Volume		16		Note		
Year		1977				
Pages		68-72				
Title		Complete amino acid sequence of guanaco (Lama guanicoe) cytochrome c.				
Xrefs						
Xref						
Db		MUID				
UId		77087753				
Month						
Genetics			Keywords			
Classification			Keyword			
Superfamily		Entry		Entry		
		cytochrome c		acetylated amino end		
		cytochrome c homology		chromoprotein		
				electron transfer		
				heme		
				iron		
				metalloprotein		
				mitochondrion		
				oxidative phosphorylation		
				respiratory chain		
Feature		Label	Feature-type	Description	Seq-spec	Status
		CYC	domain	cytochrome c homology	4-98	
			modified-site	acetylated amino end (Gly)	1	experimental
			binding-site	heme (Cys) (covalent)	14,17	experimental
			binding-site	heme iron (His, Met) (axial ligands)	18,80	predicted
Summary			Sequence		GDVEKGKKIFVQKCAQCHTVEKGGKHTGPNLHGLFGRKTGOAVGF	
Length		104		SYTDANKNGKITWG		
Type		complete		EETLMEYLENPKKIYIPGTKMIFAGIKKKGERADLIAYLKATNE		
Status						

Id		CCCM		Protein		
Header				Name cytochrome c		
Uid		CCCM		Organism		
Accession		Entry		Source Arabian camel		
		A04607		Common Arabian camel		
		A00009		Formal Camelus dromedarius		
Created Date		31-Dec-1990				
Seq-rev Date		31-Dec-1990				
Txt-rev Date		03-Mar-2000				
Reference						
• Refinfo				Accinfo		
Refid		A04607		Label SOK		
Authors				Accession A04607		
Author		Entry		Mol-type protein		
		Sokolovsky, M.		Seq-spec 1-104		
		Moldovan, M.		Xrefs		
Citation				Status		
Type				Exp-source		
Content				Contents Entry		
Volume		11		Note		
Year		1972				
Pages		145-149				
Title		Primary structure of cytochrome c from the camel, Camelus dromedarius.				
Xrefs						
Xref						
		Db MUID				
		Uid 72096652				
Month						
Genetics				Keywords		
Classification				Keyword Entry		
Superfamily		Entry		acetylated amino end		
		cytochrome c		chromoprotein		
		cytochrome c homology		electron transfer		
				heme		
				iron		
				metalloprotein		
				mitochondrion		
				oxidative phosphorylation		
				respiratory chain		
Feature						
Feature	Label	Feature-type	Description		Seq-spec	Status
	CYC	domain	cytochrome c homology		4-98	
		modified-site	acetylated amino end (Gly)		1	experimental
		binding-site	heme (Cys) (covalent)		14,17	predicted
		binding-site	heme iron (His, Met) (axial ligands)		18,80	predicted
Summary				Sequence		
Length	104		GDVEKGKKIFVQKCAQCHTVEKGGKHKTGPNLHGLFGRKTQAVGF			
Type	complete		SYTDANKNKGITWG			
Status			EETLMEYLENPKKYIPGTMIFAGIKKKGERADLIAYLKATNE			

Id		CCWHC		Protein	
Header				Name cytochrome c	
UId		CCWHC		Organism	
Accession	Entry		Source California gray whale		
	A04606		Common California gray whale		
	A00009		Formal Eschrichtius robustus, Eschrichtius gibbosus		
Created Date		31-Dec-1990			
Seq-rev Date		31-Dec-1990			
Txt-rev Date		03-Mar-2000			
Reference					
• Refinfo			Accinfo		
Refid		A04606		Label GOL	
Authors			Accession A04606		
Author	Entry		Mol-type protein		
	Goldstone, A.		Seq-spec 1-104		
	Smith, E.L.		Xrefs		
Citation			Status		
Type			Exp-source		
Content		Contents Entry			
Volume	241				
Year	1966		Note		
Pages	4480-4486				
Title	Amino acid sequence of whale heart cytochrome c.				
Xrefs					
Xref					
	Db	MUID			
	UId	67041932			
Month					
Genetics			Keywords		
Classification			Keyword Entry		
Superfamily	Entry		blocked amino end		
	cytochrome c		chromoprotein		
	cytochrome c homology		electron transfer		
			heme		
			iron		
			metalloprotein		
			mitochondrion		
			oxidative phosphorylation		
			respiratory chain		
Feature	Label	Feature-type	Description	Seq-spec	Status
	CYC	domain	cytochrome c homology	4-98	
		modified-site	blocked amino end (Gly) (probably acetylated)	1	experimental
		binding-site	heme (Cys) (covalent)	14,17	predicted
		binding-site	heme iron (His, Met) (axial ligands)	18,80	predicted
Summary			Sequence		
Length	104		GDVEKGKKIFVQKCAQCHTVEKGGKHKTGPNLHGLFGRKTGOAVGF		
Type	complete		SYTDANKNKGITWG		
Status			EETLMEYLENPKKYIPGTMIFAGIKKKGERADLIAYLKATNE		

Id		CCPG		Protein			
Header				Name cytochrome c [validated]			
UId		CCPG		Organism			
Accession		Entry		Source		pig	
				Common		domestic pig	
Created Date		17-Mar-1987		Formal		Sus scrofa domestica	
Seq-rev Date		17-Mar-1987					
Txt-rev Date		28-Jul-2000					
Reference							
• Refinfo				Accinfo			
Refid		A90743		Label		STE	
Authors				Accession		A00007	
Author		Entry		Mol-type		protein	
		Stewart, J.W.		Seq-spec		1-104	
		Margoliash, E.		Xrefs			
Citation				Status			
Type				Exp-source			
Content				Contents		Entry	
Volume		43		Note			
Year		1965					
Pages		1187-1206					
Title		The primary structure of the cytochrome c from various organs of the hog.					
Xrefs							
Xref							
		Db		MUID			
		UId		66072936			
Month							
Genetics				Keywords			
Classification				Keyword		Entry	
Superfamily		Entry		acetylated amino end			
		cytochrome c		chromoprotein			
		cytochrome c homology		electron transfer			
				heme			
				iron			
				metalloprotein			
				mitochondrion			
				oxidative phosphorylation			
				respiratory chain			
Feature		Label	Feature-type	Description		Seq-spec	Status
		CYC	domain	cytochrome c homology		4-98	
			modified-site	acetylated amino end (Gly)		1	experimental
			binding-site	heme (Cys) (covalent)		14,17	experimental
			binding-site	heme iron (His, Met) (axial ligands)		18,80	predicted
Summary				Sequence		GDVEKGKKIFVQKCAQCHTVEKGGKHKTGPNLHGLFGRKTGOAPGF SYTDANKNKGITWG EETLMEYLENPKKIYPGTKMIFAGIKKKGEREDLIAYLKATNE	
Length		104					
Type		complete					
Status							

Id		CCBO		Protein			
Header				Name		cytochrome c	
Uid		CCBO		Organism			
Accession		Entry		Source		bovine	
		A92022		Common		cattle	
		A00007		Formal		Bos primigenius taurus	
Created Date		31-Mar-1992					
Seq-rev Date		31-Mar-1992					
Txt-rev Date		03-Mar-2000					
Reference							
• Refinfo				Accinfo			
Refid		A92022		Label		NAK	
Authors				Accession		A92022	
Author		Entry		Mol-type		protein	
		Nakashima, T.		Seq-spec		1-104	
		Higa, H.		Xrefs			
		Matsubara, H.		Status			
		Benson, A.		Exp-source			
Yasunobu, K.T.				Contents		Entry	
Citation				Note			
Type							
Content							
Volume		241					
Year		1966					
Pages		1166-1177					
Title		The amino acid sequence of bovine heart cytochrome c.					
Xrefs							
Xref							
Db		MUID					
Uid		66132521					
Month							
• Refinfo				Accinfo			
Refid		A61297		Contents		Entry	
Authors							
Author		Entry		Note			
		Tsunasawa, S.					
		Narita, K.					
Citation							
Type							
Content							
Volume		92					
Year		1982					
Pages		607-613					
Title							
Xrefs							
Month							
Genetics				Keywords			
Classification							
Feature		Label	Feature-type	Description		Seq-spec	Status
Summary				Sequence			