

MEDLINE®

ONTAP® MEDLINE (FILE 254)

FILE DESCRIPTION

MEDLINE (Medical Literature, Analysis, and Retrieval System Online), produced by the U.S. National Library of Medicine (NLM), is the U.S. National Library of Medicine's premier bibliographic database that contains more than 15 million references to journal articles in life sciences with a concentration on biomedicine. The broad coverage of the database includes basic biomedical research and the clinical sciences since 1950 including nursing, dentistry, veterinary medicine, pharmacy, allied health, and pre-clinical sciences. MEDLINE also covers life sciences that are vital to biomedical practitioners, researchers, and educators, including some aspects of biology, environmental science, marine biology, plant and animal science as well as biophysics and chemistry. Increased coverage of life sciences began in 2000. The database also includes records that cover the field of space life science and date from 1961 to the present. Examples of these records include basic bone and muscle physiology, psychological effects of isolation, and gravitational effects on plants.

MEDLINE is indexed using NLM's controlled vocabulary, MeSH® (Medical Subject Headings). An online thesaurus is available to aid in locating MeSH® descriptors.

Abstracts, which are taken directly from the published articles, are included for more than 62% of the records added from 1975 forward. Records added before 1975 do not contain abstracts; records added from 1985 to the present have abstracts for about 70% of the records. Approximately 400,000 records are added per year, of which more than 76% are in English.

Records that previously would have been added to AIDSLINE, HealthSTAR, and Toxline are now part of the MEDLINE database. MEDLINE also contains In Process records (formerly known as PreMEDLINE) and In Data Review records. In addition, more than 100,000 records from POPLINE, formerly a standalone database available through NLM, were added to MEDLINE in 2003. These records cover family planning, contraception, fertility, and population issues with data from 1980 to 2000.

SUBJECT COVERAGE

MEDLINE covers virtually every area in the broad field of biomedicine, including, but not limited to, the following:

- Clinical Medicine
- Experimental Medicine
- Dentistry
- Nursing
- Hospital Literature
- Paramedical Professions
- Communication Disorders
- Population and Reproductive Biology
- Pharmacology and Pharmaceuticals
- Psychiatry and Psychology
- Education of Health Professionals
- Health Services Administration
- Environment and Public Health
- Veterinary Medicine
- Behavioral and Mental Disorders
- Health Occupations
- Occupational Medicine
- Nutrition
- Pathology
- Anatomy and Physiology
- Toxicology
- Medical Specialties (e.g., Cardiology, Neurology, Endocrinology,

Pediatrics, Surgery, etc.)

TIPS

USE THE (L) OPERATOR

to link descriptors and subheadings:
 S ANTIOXIDANTS(L)PHARMACOLOGY
 S ANTIOXIDANTS(L)PD

USE EXPLODE (!)

to search narrower descriptors in the MeSH vocabulary:
 S INSULIN!

USE THE ONLINE THESAURUS

to check and select MeSH thesaurus terms:
 E (MIGRAINE DISORDERS)

USE RECORD TYPE (RT=) FIELD

to identify completed records
 S RT=COMPLETED

SELECT SF=OLDMEDLINE IN FILE 155

to isolate records from 1950 to 1965.

USE MAP

to take CAS® Registry Numbers to another file:
 MAP RN TEMP S1

USE LIMITS

/HUMAN for human subjects
 /ENG for English-language articles

SOURCES

MEDLINE includes citations from 4,300 worldwide journals in 30 languages; 40 languages for older journals cited back to 1950. About 52% of current cited articles are published in the U.S.; nearly 86% are published in English; about 76% have English abstracts written by authors of the articles. Citations for MEDLINE are created by the NLM, international partners, and cooperating professional organizations.

DIALOG FILE DATA

Inclusive Dates: 1990 to the present (File 154)
 1950 to the present (File 155)
 Selected records from 2001 (File 254)

Update Frequency: Closed (File 254)
 Daily (Approximately 4,500 records per update) (Files 154,155)

File Size: More than 7,800,000 records as of March 2006 (File 154)
 More than 15,900,000 records as of March 2006 (File 155)
 56,989 records from 2001 (File 254)

CONTACT

MEDLINE is produced by the U.S. National Library of Medicine. Questions concerning file content should be directed to:
 National Library of Medicine
 Customer Services Section
 8600 Rockville Pike
 Bethesda, MD 20894
 Phone: 301-594-5983
 Toll Free: 888-346-3656
 Fax: 301-402-1384
 E-Mail: custserv@nlm.nih.gov

Files 154,155
SAMPLE RECORD

MEDLINE®

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20708793 PMID: 16636172
/TI Akt1 is required for physiological cardiac growth.

AU= DeBosch Brian; Treskov Iya; Lupu Traian S; Weinheimer Carla; Kovacs Attila;
Courtois Michael; Muslin Anthony J
CS= Center for Cardiovascular Research, Department of Medicine, Washington University
School of Medicine, St. Louis, MO 63110, USA.
JN=,CP=,PY=,SO= Circulation (United States) May 2 2006 , 113 (17) p2097-104 ,
SN= ISSN: 1524-4539--Electronic
JC= Journal Code: 0147763
CN= Contract/Grant No.: HL-057278; HL; NHLBI; HL-61567; HL; NHLBI; P30 DK52574;
DK; NIDDK; T32-HL07873; HL; NHLBI
NT= Publishing Model Print-Electronic; Comment in Circulation. 2006 May 2;113(17)
2032-4; Comment in PMID 16651482
DT= Document type: Journal Article
LA= Languages: ENGLISH
OA= Main Citation Owner: NLM
RT= Record type: MEDLINE; Completed
SF= Subfile: AIM; INDEX MEDICUS
/AB BACKGROUND: Postnatal growth of the heart chiefly involves nonproliferative cardiomyocyte
enlargement. Cardiac hypertrophy exists in a "physiological" form that is an adaptive
response to long-term exercise training and as a "pathological" form that often is a
maladaptive response to provocative stimuli such as hypertension and aortic valvular
stenosis. A signaling cascade that includes the protein kinase Akt regulates the growth
and survival of many cell types, but the precise role of Akt1 in either form of cardiac
hypertrophy is unknown. METHODS AND RESULTS: To evaluate the role of Akt1 in physiological
cardiac growth, akt1(-/-) adult murine cardiac myocytes (AMCMs) were treated with IGF-1,
and akt1(-/-) mice were subjected to exercise training. akt1(-/-) AMCMs were resistant to
insulin-like growth factor-1-stimulated protein synthesis. The akt1(-/-) mice were found
to be resistant to swimming training-induced cardiac hypertrophy. To evaluate the role of
Akt in pathological cardiac growth, akt1(-/-) AMCMs were treated with endothelin-1, and
akt1(-/-) mice were subjected to pressure overload by transverse aortic constriction.
Surprisingly, akt1(-/-) AMCMs were sensitized to endothelin-1-induced protein synthesis,
and akt1(-/-) mice developed an exacerbated form of cardiac hypertrophy in response to
transverse aortic constriction. CONCLUSIONS: These results establish Akt1 as a pivotal
regulatory switch that promotes physiological cardiac hypertrophy while antagonizing
pathological hypertrophy.
/DE Descriptors: *Heart--growth and development--GD; *Proto-Oncogene Proteins c-akt --
physiology --PH ; Animals; Cardiomegaly--prevention and control--PC; Endothelin-1
--pharmacology--PD; Insulin-Like Growth Factor I--pharmacology--PD; Mice; Mice, Inbred
C57BL; Mice, Knockout; Myocytes, Cardiac--pathology--PA; Myosin Heavy Chains--genetics
--GE; Nonmuscle Myosin Type IIB--genetics--GE; Protein Biosynthesis; RNA, Messenger
--analysis --AN; Receptors, G-Protein-Coupled--physiology--PH; Research Support, N.I.H.,
Extramural; Research Support, Non-U.S. Gov't; Signal Transduction; Swimming
/ID,RN= CAS Registry No.: 0 (Endothelin-1); 0 (Myosin Heavy Chains); 0 (RNA, Messenger); 0
(Receptors, G-Protein-Coupled); 67763-96-6 (Insulin-Like Growth Factor I)
/ID,EC= Enzyme No.: EC 2.7.1.37 (Proto-Oncogene Proteins c-akt); EC 3.6.1.- (Nonmuscle Myosin
Type IIB); EC 3.6.1.- (nonmuscle myosin type IIB heavy chain)
UP= Record Date Created: 20060502
RC= Record Date Completed: 20060512
Date of Electronic Publication: 20060424

SEARCH OPTIONS

BASIC INDEX

SEARCH SUFFIX	DISPLAY CODE	FIELD NAME	INDEXING	SELECT EXAMPLES
—	—	All Basic Index Fields	Word	S NUCLEAR(W)BINDING(W)PROTEIN?
/AB	AB	Abstract ¹	Word	S CARDIAC(W)HYPERTROPHY/AB
/DE	DE	Descriptor ²	Word & Phrase	S SIGNAL(W)TRANSDUCTION/DE
/GS	GS	Check Tag ³	Word	S RESEARCH SUPPORT, NON-U.S.?/DE
/ID	ID	Identifier ^{4,5,6,7}	Word & Phrase	S MALE/GS
/NM	NM	Named Person	Word & Phrase	S ANTI(W)ARRHYTHMIA(W)AGENT?/ID
/TI	TI	Title	Word	S CALCIUM CHANNEL BLOCKERS/ID
				S RICHER(W)PAUL/NM
				S RICHER PAUL/NM
				S AKT1(1W)REQUIRED(F)GROWTH/TI

¹ Abstracts are present for about 75% of records added beginning 1975. There are no abstracts for pre-1975 records.

² Also /DE*, /DF, /DF*. Most OLDMEDLINE records (1950-1965) in File 155 have at least one MeSH term.

³ As of 2006, the only remaining Check Tags are: Male and Female.

⁴ Beginning in June 1980. Also /IF.

⁵ CAS Registry Number, Enzyme Commission Number, Gene Symbol, Enzyme Name, and Chemical Name display in /ID.

⁶ Gene Symbol included 1991-1995; searchable using /DE or /ID; displayable either in the DE field or in the ID field.

⁷ Chemical Names and Enzyme Names are searchable in /ID. CAS Registry Numbers and Enzyme Commission Numbers are searchable as RN= and EC= respectively, and the display includes the names(s) in parentheses.

ADDITIONAL INDEXES

SEARCH PREFIX	DISPLAY CODE	FIELD NAME	INDEXING	SELECT EXAMPLES
AA=	AA	PubMed Unique Identifier (PMID)	Phrase	S AA=16636172
—	AN	DIALOG Accession Number		
AU=	AU	Author ⁸	Phrase	S AU=DEBOSCH B?
CN=	CN	Contract/Grant Number ⁹	Phrase	S CN=HL-057278
CP=	CP	Country of Publication	Phrase	S CP=UNITED STATES
CS=	CS	Corporate Source ¹⁰	Word	S CS=(CENTER(1W)CARDIOVASCULAR)
DC=	—	MeSH Descriptor Code ¹¹	Phrase	S DC=A7.541.?
DT=	DT	Document Type	Phrase	S DT=JOURNAL ARTICLE
EC=	EC	Enzyme Commission Number ⁷	Phrase	S EC=2.7.1.37
—	EP	Date of Electronic Publication		
JC=	JC	NLM Journal Code	Phrase	S JC=0147763
JN=	JN	Journal Name ¹²	Phrase	S JN=CIRCULATION
LA=	LA	Language	Phrase	S LA=ENGLISH
MI=	MI	Mission Name	Phrase	S MI=FLIGHT EXPERIMENT
NT=	NT	Note/Comment ¹³	Word	S NT=(ABDOMINAL(W)IMAGING)
OA=	OA	Main Citation Owner	Phrase	S OA=NLM
OB=	OB	Other Citation Owner	Phrase	S OB=KIE
OC=	OC	Abstract Source	Phrase	S OC=NASA
PY=	PY	Publication Year	Phrase	S PY=2006
RC=	RC	Record Date Completed	Phrase	S RC=20060512
—	RF	Number of References		
RI=	RI	Record Identifier	Phrase	S RI=00005178
RN=	RN	CAS(R) Registry Number ⁷	Phrase	S RN=67763-96-6
RT=	RT	Record Type	Phrase	S RT=COMPLETED
SF=	SF	Subfile	Phrase	S SF=INDEX MEDICUS
SN=	SN	International Standard Serial Number (ISSN)	Phrase	S SN=1524-4539
SO=	SO	Source Information ¹⁴	Word	S SO=(CIRCULATION AND 2006)
SQ=	SQ	Molecular Sequence Databank Number ¹⁵	Word	S SQ=(GENBANK(W)AB002182)
UD=	—	Update	Phrase	S UD=9999
UP=	UP	Record Date Created ¹⁶	Phrase	S UP=20060502

⁸ Truncate after the first initial for comprehensive retrieval.

⁹ Beginning in 1981.

¹⁰ Beginning in 1988.

¹¹ You can also EXPLODE the Descriptor term by SELECTING the term followed by an exclamation point, e.g., S HEART! Descriptor Codes do not display in records.

¹² Journal Names are searchable as the full name and the abbreviated name, displayable as the full name.

¹³ Beginning in 1989.

¹⁴ Search and Display include Journal Name, Volume, Issue, Pagination, and Publication Year.

¹⁵ Beginning in 1996.

¹⁶ The date that the processing of the record by NLM began.

Files 154,155
SPECIAL FEATURES

MEDLINE®

For command descriptions, enter HELP LIMIT, HELP SORT, HELP RANK, HELP MAP, HELP DUP online.

LIMIT	/ABS -- Abstract Present /ENG -- English-Language Records /HUMAN -- Human Subject /MAJ -- Major Descriptor /NOABS -- No Abstract Present /NONENG -- Non-English-language records /YYYY -- Publication Year	S S1/ABS S S2/ENG S ECHOCARDIOGRAM/HUMAN S HEART/MAJ S AORTA(L)GD/NOABS S S3/NONENG S S4/2004:2006
SORT	AU, CS, JN, PY, TI	SORT S1/ALL/JN,D
RANK	All phrase- and numeric-indexed fields in the Additional Indexes can be ranked. Other RANK codes include: DE, ID	RANK ID RANK AU
MAP	RN	MAP RN TEMP S1
RD, ID	Remove duplicates (RD) or identify duplicates (ID,IDO).	RD S5

PREDEFINED FORMAT OPTIONS

NO.	DIALOGWEB FORMAT	RECORD CONTENT
1	--	DIALOG Accession Number
2	--	Full Record except Abstract
3	Medium	Bibliographic Citation
4	--	Full Record with Tagged Fields ¹
5	--	Full Record ¹
6	Short	Title and Publication Year
7	Long	Bibliographic Citation and Abstract ¹
8	Free	Title, Indexing and Publication Year
9	Full	Full Record ¹
K	--	KWIC (Key Word In Context) displays a window of text; may be used alone or with other formats

OTHER OUTPUT OPTIONS

For an explanation, enter HELP TYPE, HELP UDF, HELP TAG online.

USER DEFINED FORMATS	User-defined formats can be specified using the display codes indicated in the Search Options tables.	TYPE S3/AU,TI/1-5
TAG	Output can be displayed with tags identifying each display field..	TYPE S3/5/1-10 TAG
DIRECT RECORD ACCESS	DIALOG Accession Number	TYPE 9481918/AU,TI,SO DISPLAY 7828133/7 PRINT 9631772/9

FOR ONLINE HELP:

See HELP FIELDS 154 for searchable fields; HELP FORMAT 154 for output formats; HELP LIMIT 154 for limits; HELP RATES 154 for cost information; HELP SORT 154 for sorts.