

PharmaPendium

最高クラスの医薬品の安全性情報
前臨床～臨床～上市後のデータを一望に
(米国FDA Approval Package, 欧州EMA EPARs)

製品紹介

@OUG

2008. 12. 25

エルゼビア・ジャパン株式会社
プロダクトセールスマネージャー
海附玄龍



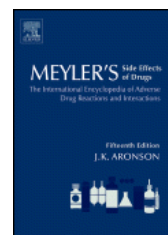
PharmaPendiumとは

PharmaPendium

- 米国およびヨーロッパ承認医薬品についての前臨床・臨床・上市後の安全性情報と医薬品情報のデータベース
 - アメリカおよび、ヨーロッパ上市薬の開発資料が全文検索できる
製薬会社が提出したFDA Approval package (新薬承認申請資料パッケージ),
European Public Assessment Reports (EMA承認薬の公開医薬品審査報告書)
 - 医薬品の開発に必要な不可欠な情報を調べる事ができる
 - 前臨床・臨床・上市後の情報に行き来できるため、比較が容易な一覧表示
- 安全性データを人手で抽出しているため、毒性・副作用情報の検索・比較が容易
- 同義語辞書を搭載しているため、類義語も一括検索
- Webでのご提供のため、アクセスが簡単



- FDA Approval Package
 - 製薬会社がFDAに提出した承認申請資料(1992年以降)
 - 上市後に取り下げになった薬の情報も引き続き掲載**
 - (⇔FDAサイトでは削除される)
- European Public Assessment Reports
 - 製薬会社がEuropean Medicines Agency (EMA)に提出した公開医薬品審査報告書(1995年以降)
 - アメリカでの未承認薬も含む
- Meyler's Side Effects of Drugs 15 Edition
 - 電子書籍。有害作用と相互作用に関する包括的な辞典
- Mosby's Drug Consult
 - 電子書籍。添付文書辞典
- RTECS / Metabolites
 - 学術論文から集めた毒性／代謝データベース
- Adverse Event Reporting System (AERS)
 - FDAが収集している市販後調査データベース(1997年10月以降)
 - FDAサイトで削除された事象についても引き続き掲載
- xPharm
 - 薬理学リファレンス xPharmから引用した薬剤標の情報



- 製薬会社がアメリカ国内で新薬市場販売許可を得るためにFDAに提出する新薬承認申請資料
- その薬剤の開発過程で得た情報の集大成
- 資料は通常100ページを超え、前臨床、臨床データを含むことはもちろん、薬物自体の化学的、薬理学的性格、安定性から有害事象まで全ての情報を含む
- その他、添付文書やApproval Letter、Administrative Document などを含む
- 申請～認可～上市後の製薬会社とFDAのやり取りの内容を知ることができる

	PharmaPendium	Drug@FDA
収録開始年	1992年 (1992年以前分は、年内に発売予定)	1998年
市場撤退薬	引き続き掲載	削除
PDFデータ形式	画像 + テキストデータ	画像データ (一部最新のもののみテキスト有)
検索	全文検索可能	医薬品名からの文書選択 (内容の検索不可)
ダウンロード	可	可
インデックス化	あり	なし



- 製薬会社がヨーロッパでEuropean Medicines Agency (EMA)に提出する承認薬の公開医薬品審査報告書
- 薬効、適応症情報、安全性情報、薬物動態情報、作用機序情報を含む文書よりなる。
- EMAが薬物の承認に至った論拠についても記述

	PharmaPendium	EMA Web site
収録開始年	1995年	1995年
市場撤退薬	引き続き掲載	削除
PDFデータ形式	画像+テキストデータ	画像+テキストデータ
検索	可	可
ダウンロード	可	可
事例のインデックス化	専門家によるインデックス化	なし



薬物動態データの検索例

Browse FDA Package | Search Hits

Search this FDA Package: **Go**

8 documents found for **distribution** plus synonyms

- 2007-Feb-20 PDF(3916k)
Pharmacology Review > Pharmacology Review 021545/S-000
...of 0.3 to 3 mg/kg. The volume of **distribution** at steady-state was moderately low,...
found 24 times in this document
- 1996-Jul-16 PDF(1080k)
Pharmacology Review > Pharmacology Review 020688 Part 02
...and disposition: Ocular tissue **distribution** of radioactivity following single...
found 10 times in this document
- 1996-Jun-20 PDF(653k)
Statistical Review > Statistical Review 020688
...applied as a two-tailed test to the **distribution** of macroscopic or microscopic non-...
found 4 times in this document
- 2007-Feb-20 PDF(2118k)
Administrative documents > Administrative document 021545/S-000
...conducting an ocular pharmacokinetic **distribution** study in rabbits with Olopatadine QD....
found 2 times in this document
- 1996-Dec-4 PDF(434k)
Environmental Review > Environmental Review 020688

Olopatadine Hydrochloride - FDA Approval Package
Pharmacology Review 020688 Part 02 (1996-Jul-16)

NDA 20-688 | Page 54

Samples	C _{max} (µg eq/g)	T _{max} (hr)	T _{1/2} (hr)
Blood	0.0026	0.5	NA
Plasma	0.0033	0.5	1.3
Aqueous Humor, dosed eyes	0.155	1	1.4
Conjunctiva, dosed eyes	0.398	0.5	1.9
Cornea, dosed eyes	1.85	0.5	1.8
Iris-ciliary body, dosed eyes	0.108	1	1.4
Lens, dosed eyes	0.0026	2	9.0
Choroid, dosed eyes	0.0219	0.5	0.9
Conjunctiva, control eyes	0.0014	0.5	NA
Cornea, control eyes	0.0026	0.5	NA

Above data suggest that olopatadine mostly distributed to the anterior ocular tissues. Most of the drug was concentrated in conjunctival tissues. The **distribution** in the posterior ocular tissues of the doses eye was minimal. Also, the contralateral eye showed less than 0.0026 µg eq/g of the radio labeled olopatadine in conjunctiva and cornea. The amount in the conjunctiva and cornea in the control eye was almost similar to that in the blood.



製剤関連等の周辺情報も

➤ 剤形、賦形剤などの製剤関連情報も検索、活用可能

Drug, lot#, radiolabel, and % purity: MK-0869 Formulation M, lot number L-754030-004H031, had an average particle size of \sim μ m with 99.5% purity. MK-0869, Formulation NB (MK-0869 blended coated \sim beads), batch #X0869OPP015C001 (also known as L-754030-016S001) with an average particle size of \sim was obtained by blending 3 batches of MK-0869 coated beads with purity ranging from 99.6 to 100.0%.

Formulation/vehicle: The vehicle for MK-0869 Formulation M was 5% methylcellulose and 0.02% sodium lauryl sulfate in deionized water. The vehicle for MK-0869 Formulation NB was 3% hydroxypropyl cellulose, 15% sucrose, and 0.14% sodium lauryl sulfate in deionized water.

Pharmacology Review 021549/S-000 Part 03 (2003-Jul-6)

Drug, lot #, radiolabel, and % purity: Batch # P/1465/28, P/1465/26, P/1465/29, 99.9% w/w
Formulation/vehicle:

Ingredients	Strength placebo	Strength 2 % w/v	Strength 1.96 % w/v
	% w/v	% w/v	% w/v
ICI 182780	-	2.0	1.96
ICI 182780 sulphone	1.0	-	0.04
Poloxamer 407 USNF	10.0	1.0	1.0
Ethanol 96 % BP	8.0	10.0	10.0
Water for Injection Ph Eur	to 100 %	8.0	8.0
Propylene glycol	to 100 %	to 100 %	to 100 %
Formulation batch reference	P/1465/28	P/1465/26	P/1465/29

Pharmacology Review 021344/S-000 Part 02 (2002-Apr-25)



ファクト化(インデックス化)された副作用・毒性情報

Browse Drugs A-Z

Lookup:

- Analgesics, non-narcotic
 - Rofecoxib (Vioxx, Vioxx Forte)
- COX-2 inhibitors
 - Rofecoxib (Vioxx, Vioxx Forte)
- COX-2 specific inhibitor
 - Rofecoxib (Vioxx, Vioxx Forte)
- Nonsteroidal anti-inflammatory
 - Rofecoxib (Vioxx, Vioxx Forte)

Viewing by area affected

• View by name

	Preclinical Data view all 710	Clinical Data view all 2245	Post-Marketing Reports (AERS) view all 292293
<input checked="" type="checkbox"/> Blood and lymphatic system disorders	45	39	3115
<input checked="" type="checkbox"/> Cardiac disorders	2	208	66632
<input checked="" type="checkbox"/> Cardiac arrhythmias	no data	24	8485
<input checked="" type="checkbox"/> Cardiac disorder signs and symptoms	2	19	8946
<input checked="" type="checkbox"/> Cardiac valve disorders	no data	no data	2711
<input checked="" type="checkbox"/> Coronary artery disorders	no data	136	38651
<input checked="" type="checkbox"/> Coronary artery disease			
<input checked="" type="checkbox"/> Ischaemic c...			

pharmaPendium
the essential drug safety resource

Home Drugs Adverse Effects / Toxicity Targets

Search: All These Sources for Include synonyms

Lookup:

Browse Adv. Effects/Toxicity A-Z

- Blood and lymphatic system disorders
 - Anaemias, nonhaemolytic and me...
 - Coagulopathies and bleeding dia...
 - Haematological disorders, NEC (4)
 - Haematopoietic neoplasms (excl...
 - Haemoglobinopathies (47)
 - Haemolyses and related conditio...
 - Platelet disorders (29148)
 - Red blood cell disorders (1855)
 - Polycythaemia (excl rubra ve...
 - Red blood cell abnormal findin...
 - Spleen, lymphatic and reticuloer...
 - White blood cell disorders (5376)
 - Cardiac disorders (346304)

Advanced Search - Chemistry Sea...
Extracted Data Search

Blood and lymphatic system disorders > Red blood cell disorders

Red blood cell disorders

Narrower Terms:

Polycythaemia (excl rubra vera) (336), Red blood cell abnormal findings NEC (1519)

Drugs *:

	Preclinical Data view all 264	Clinical Data view all 169	Post-Marketing Reports (AERS) view all 2814
<input checked="" type="checkbox"/> 5-alpha-reductase inhibitors	no data	no data	1
<input checked="" type="checkbox"/> Abortifacients	no data	no data	1
<input checked="" type="checkbox"/> Acidifiers, urinary	1	no data	no data

Viewing by area affected

• View by name

	Preclinical Data view all 0	Clinical Data view all 42	Post-Marketing Reports (AERS) view all 22624
<input checked="" type="checkbox"/> Myocardial infarction	0	42	22624

Clinical Data for Rofecoxib AND Myocardial infarction

Preclinical Data (0) Clinical Data (42) Post-Marketing Reports (AERS) (22624)

Viewing 42 of 42 No filters applied

Too much data? Use [filters](#) to narrow.

Drug Name	Adverse Effect / Toxicity	Species	Dose	Dose Type	Route	Source Document	Year
1 Rofecoxib drug info	Myocardial infarction	human	therapeutic	Repeated	Not Specified	Mayle's Side Effects of Drugs: Rofecoxib	2005
2 Rofecoxib	Myocardial infarction	human	therapeutic	Repeated	Not Specified	Mayle's Side Effects of Drugs: COX-2 Inhibitors	2005



- 前臨床/臨床開発
 - 毒性
 - 安全性薬理
 - 薬物動態
- 規制情報担当
- 上市後安全性情報担当 (Pharmacovigilance)
- その他(製剤等の情報も...)



- FDAが自社薬剤の添付文書に新たな副作用警告の追加をさせようとしている...
 - もし、競争の激しい薬剤クラスであれば、売上げの喪失によるコストは莫大になる恐れ
- PharmaPendiumがあることで可能なこと:
- 💡 警告の追加に対する抗弁の根拠を得るために、Approval package内の書類から先例を検索
 - 💡 臨床および上市後のデータから、特異体質やその他の要素によるものであることを発見
 - 💡 競合の薬剤の臨床・上市後情報から、その副作用が薬剤クラスに普遍的なものであることを示し、競合が持ちえたアドバンテージを除去



➤ 申請段階の時間の無駄を避ける

- データ不足、間違ったデータ、実験デザインの不備により、申請が差し戻しに...
 - 結果として...
 - 1年またはそれ以上のロス; 膨大なコスト
 - 特許の有効期間のロス

PharmaPendiumを使うことで可能なこと:

- 💡 様々な類似点を持つ全ての薬剤について先例を分析し、何がなされ、何がなされなかったのかを明らかにしておく
 - 不備を未然に防ぐ
- 💡 PharmaPendiumのApproval packageデータベースを利用して先例を探すことにより、提出されたデータが有効であり、網羅性を満たしていることの申し立てを作る
 - 事態を修正する



- 5つの開発候補があり、どれを次のステージに進めるかの最良の選択が必要
 - 安全性に問題のある候補を選択した場合...
 - 臨床の後期まで発見が遅れれば、莫大な損失をもたらすことも
 - 安全性に問題があるとの誤った推測により、ブロックバスターになりえた候補を「殺して」しまった場合...
 - 計り知れない損失

PharmaPendiumは、

入手可能な前臨床、臨床、上市後の安全性および薬物動態のデータを検索、比較吟味することの出来る唯一のソース



国内外の皆様のご評価

"I think the amount of information contained within the database was great"

"Easy to navigate through: many possible 'investigations' that can be done rapidly"

"I was very impressed to see how the product has taken shape. I am find that the searchable FDA approval packages are even more useful than I thought they would be at earlier stages."

"This database is the first effort in putting all available safety and related information on FDA approved products."

"Friendly interface. Very easy to get started. I quickly found interesting information."

"I like the possibility to search the regulatory documents and to get compilations of adverse/tox effects for various drug class etc."

左: PharmaPendium βテストでの評価 (2006年2月から2週間、欧米の11機関 (FDAも含む) でβテストを実施。約130名の研究者・調査担当者が参加。)

- 「標的由来の毒性情報の収集には有用」(毒性研究者)
- 「膨大なFDA文書を効率よく検索でき、有用である」(毒性研究者)
- 「開発ステージごとに副作用情報がよく纏められている点で、利用しやすいDBとなりうる」(毒性研究者)
- 「FDAホームページからの検索に比べ使いやすい」(毒性研究者)
- 「基礎試験(非臨床)における副作用・毒性情報を網羅している点」(調査・薬理研究者)
- 「内容だけでなく、書類の書き方の参考になります」(毒性研究者・マネージャー)

右: 国内での評価

研究企画、探索毒性、薬物動態、安全性薬理、薬事、ファーマコビジランスなどの部署でご利用いただいております

**FDAもIPライセンスで
PharmaPendiumを利用中**



FDA Approval package全体からの検索

キーワードを入力

同義語を自動で展開

Search for Include synonyms [Advanced Search](#) - [Chemistry Search](#) [Extracted Data Search](#)

Search Results 同義語の展開内容の確認・修正

239 documents found for **vioxx** plus synonyms ([query details](#)) in FDA approval packages No filters applied

Too much data? Use [filters](#) to narrow.

[View Chemical Structures](#) Viewing 1 - 10 of 239 Jump to results:

	Document with context	Drug Name	Source	Year
1	Administrative documents PDF(1.651k) ...Celecoxib (Celebrex NDA 20-998) Rofecoxib (Vioxx NDA 21-042, NDA 21-052)...	Celecoxib drug info	FDA approval packages	2002
2	Administrative documents PDF(1.404k) ...or GI bleed were excluded. Rofecoxib A search of the AERS database on...	Celecoxib drug info	FDA approval packages	2002
3	FDA Approval Document PDF(354k) ...selective NSAIDs (i.e., celecoxib, rofecoxib , and valdecoxib) are associated with...	Naproxen Sodium drug info	FDA approval packages	2005
4	FDA Approval Document PDF(736k) ...risk of the COX-2 selective NSAIDs, rofecoxib and celecoxib, and a variety of...	Naproxen Sodium drug info	FDA approval packages	2005



Approval Package文書のPDF表示

Browse FDA Package

Search this Package: **Go**

- 2005-Dec-16 PDF (3861K) Administrative document 021647/S-000
- 2002-Apr-11 PDF (1576K) Administrative document 021042/S-007, S-008, S-010, S-012, S-013, S-014, S-009; 021052/S-004, S-005, S-006, S-007, S-008, S-009
- 1999-May-24 PDF (1700K) Administrative documents 021042
- 1999-May-20 PDF (511K) Administrative document 021042/S-000; 021052/S-000 Part 01
- 1999-May-20 PDF (536K) Administrative document 021042/S-000; 021052/S-000 Part 02
- 1999-May-20 PDF (625K) Administrative document 021042/S-000; 021052/S-000 Part 03
- 1999-May-20 PDF (581K) Administrative document 021042/S-000; 021052/S-000 Part 04
- 1999-May-20 PDF (588K) Administrative document 021042/S-000; 021052/S-000 Part 05
- 1999-May-20 PDF (509K) Administrative document 021042/S-000; 021052/S-000 Part 06
- 1999-May-20 PDF (493K) Administrative document 021042/S-000; 021052/S-000 Part 07
- 1999-May-20 PDF (576K)

Rofecoxib - FDA Approval Package
Administrative document 021647/S-000 (2005-Dec-16)

次(前)のキーワードヒット位置にジャンプ

SUBJECT: Action Memo for NDA 21-647, for the use of **Vioxx (rofecoxib)** in the acute treatment of migraine

NDA 21-647, for the use of **Vioxx (rofecoxib)**, a non-steroidal anti-inflammatory (NSAID) COX-2 inhibitor, in the acute treatment of migraine, was submitted by Merck Laboratories on 5/23/03. **Vioxx** is currently approved for the treatment of the signs and symptoms of osteoarthritis (OA) and rheumatoid arthritis (RA), as well as for the management of acute pain and primary dysmenorrhea. This application contains the results of 2 randomized, single dose, controlled trials in patients with acute migraine, as well as a 3 month extension of one of the controlled trials, and a 3 month study of migraine prophylaxis. In addition, the sponsor presents chronic safety data in patients with OA and RA in support of the chronic safety in patients with migraine.

The application has been reviewed by Dr. Kevin Prohaska, medical officer (review dated 3/4/04), Dr. Sharon Yan, statistician (review dated 3/4/04), Dr. Martha Heimann, chemist (review dated 2/3/04), Dr. Andrea Powell, pharmacologist (review dated 3/8/04), Dr. Ni Khin, Division of Scientific Investigations (review dated 1/14/04), Ms. Jeanine Best, Division of Surveillance, Research, and Communication Support (review dated 2/25/04), Dr. Sharon Hertz, Division of Anti-inflammatory, Analgesic, and Ophthalmologic Drug Products (review dated 3/19/04), and Dr. Eric Bastings, Neurology Drugs Team Leader (memo dated 3/22/04). The review team recommends that the application be approved. I will briefly review the relevant safety and effectiveness data, and offer the rationale for the Division's action.

15 | 当該Approval Package内の文書一覧

ELSEVIER

Advanced Searchの活用(近接検索)

Advanced Searchモードへ

Advanced Search - Chemistry Search
Extracted Data Search

Find results: ..with all of the words: within at least words of one another **Search Now**

...with at least one of the words:

...without the words:

Include synonyms

Limit to:

Drugs and Drug Classes

Sources

- Select All
- 5-alpha-reductase inhibitors
- Abortifacients
- Acidifiers, urinary
- Adrenal steroid inhibitors
- Adrenergic agonists
- Aldose reductase inhibitor
- Alkalinizing agents

語数を指定
複数のキーワードを入力
検索を開始

近接検索の応用例(適応症から薬剤を探す)

Advanced Search

Find results: ...with **all** of the words: within at least words of one another ④

...with **at least one** of the words:

...without the words: ①

Include synonyms

Limit to:

②

Select All

EMEA approval documents

FDA approval packages

Mosby's Drug Consult™ ③

Meyler's

Search Results

42 documents found for [indications,dermatitis=100] without synonyms (query details)

Too much data? Use [filters](#) to narrow.

Viewing 1 - 10 of 42

	Document with context	Drug Name	Source
1	Drug monograph for Clobetasol Propionate ...perioral dermatitis, allergic contact dermatitis, secondary infection, irritation, ... <i>found 14 times in this document</i>	Clobetasol Propionate drug info	Mosby's Drug Consult™
2	Drug monograph for Pimecrolimus ...by Day 15. Of the key signs of atopic dermatitis, erythema, infiltration/papulation, ... <i>found 8 times in this document</i>	Pimecrolimus drug info	Mosby's Drug Consult™
3	Drug monograph for Tacrolimus ...in lichenification slightly slower. indications Tacrolimus ointment, both 0.03%	Tacrolimus drug info	Mosby's Drug Consult™

Tacrolimus - Drug Monograph

source: Mosby's Drug Consult™ - copyright 2006

Indications

- Rejection, renal transplant, prophylaxis
- **◀ Dermatitis ▶**, atopic
- Rejection, heart transplant, prophylaxis
- Rejection, liver transplant, prophylaxis

Form: Capsules and Injection



近接検索の応用例(適応症から薬剤を探す) 続き

クラスごとの薬剤リストを得るには...

Search Results

42 documents found for [indications,dermatitis=100] without synonyms (query details) No filters applied

Too much data? Use [filters](#) to narrow.

Viewing 1 - 10 of 42

Jump to results:

	Document with context	Drug Name	Source	Year
1	Drug monograph for Clobetasol Propionate ...perioral dermatitis, allergic contact dermatitis, secondary infection, irritation, ...	Clobetasol Propionate drug info	Mosby's Drug Consult™	2005

Filter records by:

Select All

- Acidifiers, urinary(1)
 - Methionine(1)
- Allergenic extracts(1)
 - Poison Ivy Extract(1)
- Amino acids and derivatives(1)
 - Methionine(1)
- Anti-infectives, ophthalmic(4)
- Anti-infectives...otic(1)

クリックして 展開表示 →



薬剤情報(Drug information view)

[Drugs]ボタンをクリック

pharmaPendium™
the essential drug safety resource

Home **Drugs** Adverse Effects / Toxicity Targets

Log Out Search Tips Help

Search All These Sources for Include synonyms Go Advanced Search - Chemistry Search Extracted Data Search

Browse Drugs A-Z
Lookup: viox **Go**

COX-2 inhibitors > Rofecoxib

Rofecoxib

Brands: Alfof; Ceoxx; Dolib; Flanax; Refox; Rhuma-Cure; Rofetab; Rofiz Gel; Sivoz; Toroxx MT; Versatil; Vioxx; Vioxx Forte

Documents: [FDA approval package](#) ← この薬剤のApproval package
[Drug monograph from Mosby's Drug Consult™](#)
[Ch.9 Anti-Inflammatory, Antipyretic and Antigout Drugs > Ch.9.2 Non-Steroidal Anti-Inflammatory Drugs > NSAIDs \(Meyler's\)](#)
[Ch.9 Anti-Inflammatory, Antipyretic and Antigout Drugs > Ch.9.2 Non-Steroidal Anti-Inflammatory Drugs > COX-2 Inhibitors \(Meyler's\)](#)
[Ch.9 Anti-Inflammatory, Antipyretic and Antigout Drugs > Ch.9.2 Non-Steroidal Anti-Inflammatory Drugs > Rofecoxib \(Meyler's\)](#)

Drug Classes: [Analgesics, non-narcotic](#)
[COX-2 inhibitors](#)
[COX-2 specific inhibitor](#)
[Nonsteroidal anti-inflammatory drugs](#)

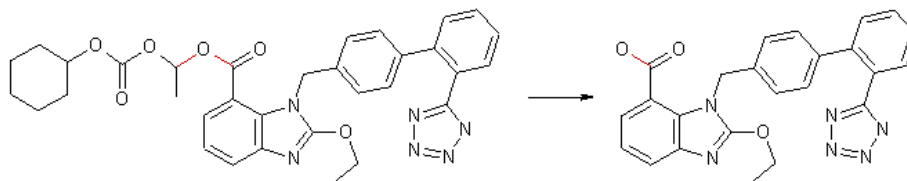
Analgesics, non-narcotic
 Rofecoxib (Vioxx, Vioxx Forte)
 COX-2 inhibitors
 Rofecoxib (Vioxx, Vioxx Forte)
 COX-2 specific inhibitor
 Rofecoxib (Vioxx, Vioxx Forte)
 Nonsteroidal anti-inflammatory
 Rofecoxib (Vioxx, Vioxx Forte)

薬剤名で検索
(薬剤クラスでの指定も可能)



代謝データの参照

Metabolism: [Show Known Metabolites](#)



MDL Reaction Number : RMTB00028527

Ref.#	Literature Reference	Species	EC.NO	Isoenzyme
1	Buter, H.; Navis, G. Y.; Woittiez, A. J. J.; de Zeeuw, D.; de Jong, P. E., Pharmacokinetics and pharmacodynamics of candesartan cilexetil in patients with normal to severely impaired renal function, <i>Eur J Clin Pharmacol</i> , 1999, 54(12), 953	Human (Hypertensive)		
2	Stenhoff, H.; Lagerstroem, P.-O.; Andersen, C., Determination of candesartan cilexetil, candesartan and a metabolite in human plasma and urine by liquid chromatography and fluorometric detection, <i>J Chromatogr. B: Biomed Appl</i> , 1999, 731(2), 411	Human Human		
3	Meineke, I.; Feltkamp, H.; Hoegemann, A.; Gundert-Remy, U., Pharmacokinetics and pharmacodynamics of candesartan after administration of its pro-drug candesartan cilexetil in patients with mild to moderate essential hypertension - a population analysis, <i>Eur J Clin Pharmacol</i> , 1997, 53(3/4), 221	Human		

有害事象一覧(Drug information view)

Browse Drugs A-Z

Lookup:

- [-] Analgesics, non-narcotic
 - [-] Rofecoxib (Vioxx, Vioxx Forte)
- [-] COX-2 inhibitors
 - [-] Rofecoxib (Vioxx, Vioxx Forte)
- [-] COX-2 specific inhibitor
 - [-] Rofecoxib (Vioxx, Vioxx Forte)
- [-] Nonsteroidal anti-inflammatory
 - [-] Rofecoxib (Vioxx, Vioxx Forte)

Viewing by area affected

View by name

	Preclinical Data view all 710	Clinical Data view all 2245	Post-Marketing Reports (AERS) view all 292293
[-] Blood and lymphatic system disorders	45	39	3115
[-] Cardiac disorders	2	208	66632
[-] Cardiac arrhythmias	no data	24	8485
[-] Cardiac disorder signs and symptoms	2	19	8946
[-] Cardiac valve disorders	no data	no data	2711
[-] Coronary artery disorders	no data	136	38651
[-] Coronary artery disorders NEC	no data	59	7908
[-] Ischaemic coronary artery disorders	no data	77	30743
Acute coronary syndrome	no data	no data	342
Acute myocardial infarction	no data	8	2629
Angina pectoris	no data	10	3143
Angina unstable	no data	15	1118
Arteriospasm coronary	no data	2	53
Microvascular angina	no data	no data	2
Myocardial infarction	no data	42	22624
Myocardial ischaemia	no data	no data	704
Postinfarction angina	no data	no data	12
Prinzmetal angina	no data	no data	7
Silent myocardial infarction	no data	no data	107
Subendocardial ischaemia	no data	no data	2
[-] Endocardial disorders	no data	no data	6

有害事象の分類は階層化されており、大分類→小分類へと展開して表示可能

数字をクリックで詳細表示



有害事象詳細表示

Clinical Data for Rofecoxib AND Myocardial infarction

Preclinical Data (0)
Clinical Data (42)
Post-Marketing Reports (AERS) (22624)

Viewing 42 of 42 No filters applied

Too much data? Use [filters](#) to narrow.

EXCEL表にエクスポート

▼ SHOW FILTERS

(View Chemical Structures) (Export Table...)

Drug Name	Adverse Effect / Toxicity	Species	Dose	Dose Type	Route	Source Document	Year
1 Rofecoxib drug info	Myocardial infarction	human	therapeutic	Repeated	Not Specified	Meyler's Side Effects of Drugs: Rofecoxib	2005
2 Rofecoxib	Myocardial infarction	human	therapeutic	Repeated	Not Specified	Meyler's Side Effects of Drugs: COX-2 Inhibitors	2005
3 Rofecoxib	Myocardial infarction	human	therapeutic	Repeated	Not Specified	Meyler's Side Effects of Drugs: COX-2 Inhibitors	2005
4 Rofecoxib	Myocardial infarction	human	therapeutic	Repeated	Not Specified	Mosby's Drug Consult™: Drug monograph for Rofecoxib	2005
5 Rofecoxib	Myocardial infarction	human	25-50 mg/day	Repeated	oral	FDA approval package document: Medical/Clinical Review (Page:46) PDF(1391k)	2002
6 Rofecoxib	Myocardial infarction	human	25-50 mg/day	Repeated	oral	FDA approval package document: Medical/Clinical Review (Page:25) PDF(1687k)	2002
7 Rofecoxib	Myocardial infarction	human	25-50 mg/day	Repeated	oral	FDA approval package document: Medical/Clinical Review (Page:24) PDF(1687k)	2002
8 Rofecoxib	Myocardial infarction	human	25-50 mg/day	Repeated	oral	FDA approval package document: Medical/Clinical Review (Page:7)	2002

ワンクリックで別の段階での有害事象情報を表示

フィルターを表示



有害事象詳細画面のフィルター機能

Clinical Data for Rofecoxib AND Myocardial infarction

Preclinical Data (0)

Clinical Data (42)

Post-Marketing Reports (AERS) (22624)

Viewing 42 of 42 No filters applied

Filter records by:

Adverse Effects / Toxicity

Dose Types

Drugs and Drug Classes

Routes of Administration

Sources

Select All

Meyler's (3)

Mosby's Drug Consult™ (1)

FDA approval packages (38)

Clinical Pharmacology and Biopharmaceutics Review (1)

Medical Officer Review (2)

Medical/Clinical Review (35)

Apply Filters

Remove All Filters

Apply Selected Filters

HIDE FILTERS

View Chemical Structures

Export Table...

Drug Name	Adverse Effect / Toxicity	Species	Dose	Dose Type	Route	Source Document	Year
1 Rofecoxib drug info	Myocardial infarction	human	therapeutic	Repeated	Not Specified	Meyler's Side Effects of Drugs: Rofecoxib	2005
2 Rofecoxib	Myocardial infarction	human	therapeutic	Repeated	Not Specified	Meyler's Side Effects of Drugs: COX-2 Inhibitors	2005

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市販後有害事象の詳細表示

Post-Marketing Reports (AERS) for Rofecoxib AND Cardiac failure

396 Post-Market Reports (AERS)

Rofecoxib > Cardiac failure > Gender = M

Export Table

Export this table to see fields from the AERS dat

AERS Report #	Adverse Events	Outcomes	FDA Date	Gender	Age	Other Administered Drugs
1 View AERS Report	Anaemia Cardiac failure Chest pain Dizziness Dyspnoea Hyperhidrosis Nausea Red blood cell sedimentation rate increased Renal failure	• Hospitalization - Initial or Prolonged	2000-07-17	M	51	<input type="checkbox"/> Aspirin <input type="checkbox"/> Atenolol <input type="checkbox"/> Atorvastatin Calcium <input type="checkbox"/> Buspirone Hydrochloride <input type="checkbox"/> Digoxin <input type="checkbox"/> Divalproex Sodium <input type="checkbox"/> Fenofibrate <input type="checkbox"/> Furosemide <input type="checkbox"/> Gabapentin <input type="checkbox"/> Isosorbide Mononitrate <input type="checkbox"/> Lisinopril <input type="checkbox"/> Minerals; Multivitamins <input type="checkbox"/> Mirtazapine <input type="checkbox"/> Niacin <input type="checkbox"/> Nitroglycerin <input type="checkbox"/> Vitamin E
2 View AERS Report	Cardiac failure Left ventricular failure	• Hospitalization - Initial or Prolonged	2000-08-10	M	52	<input type="checkbox"/> Phenprocoumon
3 View AERS Report	Blood creatinine increased Cardiac failure Cardiac failure congestive Cholecystitis Cough	• Hospitalization - Initial or Prolonged	2000-08-14	M	77	<input type="checkbox"/> Acetylcysteine <input type="checkbox"/> Cholecalciferol <input type="checkbox"/> Digitoxin <input type="checkbox"/> Dipyridamole <input type="checkbox"/> Furosemide

Concomitant (併用薬)
Secondary Suspect
Interacting (相互作用する薬剤)

24



副作用・毒性情報ページ

[Adverse effects / Toxicity]ボタンをクリック

pharmaPendium the essential drug safety resource

Home Drugs Adverse Effects / Toxicity Targets Search Tips Help

Search All These Sources for [] Include synonyms Go Advanced Search - Chemistry Search Extracted Data Search

Browse Adv. Effects/Toxicity A-Z

Lookup: [] Go

Blood and lymphatic system disorders > Red blood cell disorders

Red blood cell disorders

Narrower Terms: Polycythaemia (excl rubra vera) (336), Red blood cell abnormal findings NEC (1519)

Drugs *:

Viewing by area affected

	Preclinical Data view all 264	Clinical Data view all 169	Post-Marketing Reports (AERS) view all 2814
5-alpha-reductase inhibitors	no data	no data	1
Abortifacients	no data	no data	1
Acidifiers, urinary	1	no data	no data
Adrenergic agonists	3	no data	1
Amino acids and derivatives	1	no data	no data
Amphetamines	no data	no data	5
Analeptics	3	no data	no data
Analgesics, narcotic	no data	1	15
Analgesics,			

25

検索も可能

薬剤クラスごとに表示

階層化して表示



薬剤標的の情報ページ

[Targets]ボタンをクリック

pharmaPendium the essential drug safety resource

Home Drugs Adverse Effects / Toxicity Targets Search Tips Help

Search All These Sources for [] Include synonyms Go Advanced Search - Chemistry Search Extracted Data Search

Browse Targets A-Z

Lookup: [] Go

By SuperFamily > Receptors > 7-Transmembrane Receptors > Prostanoid Receptors > IP Prostanoid Receptor

IP Prostanoid Receptor

Drugs: Beraprost (2), Cicaprost (2), Ciprostone (2), Epoprostenol Sodium (1), Iloprost (1)

Adverse Effects / Toxicity (for drugs that interact with this target) *:

Viewing by area affected

	Preclinical Data view all 229	Clinical Data view all 1379	Post-Marketing Reports (AERS) view all 4
Blood and lymphatic system disorders	8	23	124
Cardiac disorders	2	134	597
Congenital, familial and genetic disorders	9	no data	9
Ear and labyrinth disorders	1	3	13
Endocrine disorders	2	1	27

26

階層化して表示

検索も可能



複数の条件を組み合わせた検索

Extended Data Search

Show me preclinical & clinical studies for these:

DRUGS:
 Add Drugs and Drug Classes
 Add Drugs that hit a specific Target or Target Class

ADVERSE EFFECTS / TOXICITIES:
 Add Adverse Effects / Toxicities

SPECIES:
 Add Species

Sources:
 EMEA approval documents
 FDA approval packages
 Mosby's Drug Consult™
 MDL® Toxicity (drugs only)
 Meyler's

Buttons: Search Now, Clear All, Go

各条件ごとに
左の階層表示から
選択して入力

データソースを
選択

構造式から検索する(1)

Chemical Name(s) DIBENZ(B,E)OXEPIN-2-ACETIC ACID, 11-(3-(DIMETHYLAMINO) PROPYLIDENE)-6,11-DIHYDRO-, HYDROCHLORIDE, (11Z)-

Chemical Structure

Chemical Formula C21 H23 N O3 · Cl H

CAS Number(s) 140462-76-6

Molecular Weight 373.8776

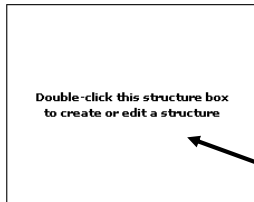
Buttons: similar structures, copy to search form

Drug Information画面下部の
Chemical Structureが活用可能
“similar structures”,
“copy to search form”

構造式から検索する(2)

Chemistry Search Form

Chemistry Searchメニューから
“Chemistry Search Form”を呼び出す



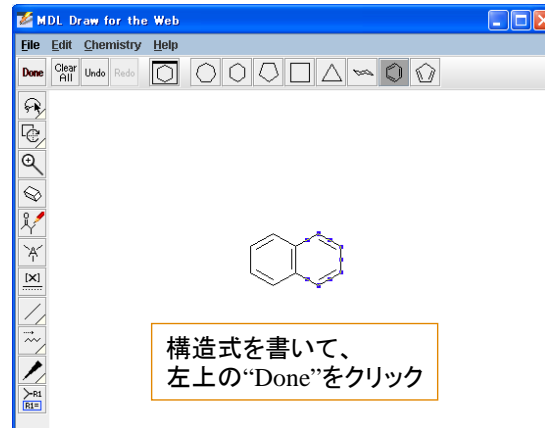
similarity search
exact match
substructure search
similarity search

Search Now

Clear All

オプションを設定(完全一致、部分一致、類似)

ダブルクリックして
構造式エディタ(MDL Draw)
を呼び出す



構造式を書いて、
左上の“Done”をクリック

構造式から検索する(3)

Chemistry Search Results

Chemistry Search Results (1 - 10) Preclinical Data(1072) Clinical Data(2499) Post-Marketing Reports (AERS)(44911)

15 results found for your chemical structure (at 60% similarity) No filters applied Edit Search

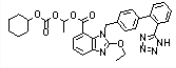
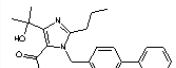

Too much data? Use filters to narrow.

SHOW FILTERS

Export Table

Viewing 1 - 10 of 15 Next

Jump to results: page 1

Chemical Structure	Similarity %	Drug Name
	100.0%	Candesartan Cilexetil drug info 1H-BENZIMIDAZOLE-7-CARBOXYLIC ACID, 2-ETHOXY-1-((2'-(1H-TETRAZOL-5-YL)(1,1'-BIPHENYL)-4-YL)METHYL)-, 1-(((CYCLOHEXYLOXY)CARBONYL)OXY)ETHYL ESTER, (+)-
	66.95%	Olmesartan Medoxomil drug info 1H-IMIDAZOLE-5-CARBOXYLIC ACID, 4-(1-HYDROXY-1-METHYLETHYL)-2-PROPYL-1-((2'-(1H-TETRAZOL-5-YL)(1,1'-BIPHENYL)-4-YL)METHYL)-, (5-METHYL-2-OXO-1,3-DIOXOL-4-YL)METHYL ESTER
	64.51%	Mizolastine drug info 4(1H)-PYRIMIDINONE, 2-((1-(1-((4-FLUOROPHENYL)METHYL)-1H-BENZIMIDAZOL-2-YL)-4-PIPERIDINYL)METHYLAMINO)-

- FDA Approval Package、EMEA European Public Assessment Reports に対する全文検索
- 2つのメジャーな規制機関(FDAとEMEA)の文書を同時に同一サイトで検索、閲覧、比較可能
- 医薬品の承認提出資料や辞典など、信頼性の高い情報源から検索
- 前臨床・臨床・上市後の副作用・毒性・有害事象情報が予めインデックス化されているので...
 - 一覧表示で全体像と、その中での個々の事例の理解を助ける
 - ピンポイントに毒性・副作用の情報を探し出せる
 - 前臨床・臨床・上市後のデータを行き来しながら検討できるので、川上・川下を意識した開発を助け、全体最適に寄与
- 情報検索を大幅にスピードアップ



補足資料:コンテンツごとの収録範囲

- FDA Approval Package
 - 680以上の薬剤についてのReviews(1992～)
 - 750以上の薬剤についての限定的情報(1992以前承認薬剤の1992以降追加)
- EMEA European Public Assessment Reports
 - 300以上の薬剤についてのreviews(1995～)
 - 80,000ページ以上の文書情報
 - アメリカでの未承認薬を含む
- Meyler's Side Effects of Drugs, 15th Edition
 - 全内容及び、そこから抽出された60,000件以上の臨床データのレコードを収録
- Mosby's Drug Consult, 2006. Oct.
 - アメリカ上市薬全て(2,000以上)について、Drug Monographsを収録(基本的に添付文書の全文)
- RTECS(部分収録)
 - FDA, EMEA承認薬についての前臨床データを抽出して収録(約2,000薬剤)
- Metabolite(部分収録)
 - FDA, EMEA承認薬についての代謝データを抽出して収録(約1,000薬剤)
- AERS
 - アメリカ上市薬についての上市後有害事象報告を収録(約2,000薬剤)
- 薬剤標的情報
 - FDA Approval documents, xPharm, Mosby's Drug Consultより収録(約2,000薬剤)

