A compound of formula (I) wherein each of m and n, being the same, is an integer of 1 to 3; and each of the R groups, which are the same, is a naphthyl group substituted by 1 to 3 sulfonic acid groups, or a pharmaceutically acceptable salt thereof, is provided in the preparation of a medicament for use in the treatment of lentivirus infection.
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"BIOLOGICALLY ACTIVE UREIDO DERIVATIVES USEFUL IN THE TREATMENT OF LENTIVIRUS-INDUCED DISEASE"

The present invention relates to the use of ureido derivatives of substituted pyrroles in the treatment of lentivirus-induced diseases in mammals.

The development of compounds useful for the prophylaxis and therapy of viral disease has presented more difficult problems than those encountered in the search of drugs effective in disorders produced by other microorganisms. This is typically the case with lentivirus-induced diseases, in particular human immunodeficiency viruses (HIV) that as known induce acquired immunodeficiency syndrome (AIDS). AIDS is a secondary immunodeficiency syndrome resulting from HIV infection.

Two closely related viruses, HIV-1 and HIV-2, have been identified as causing AIDS in different geographic regions. HIV-1 causes most cases of AIDS in the Western Hemisphere, Europe and Central, South and East Africa; HIV-2, which appears less virulent than HIV-1, is the principal agent of AIDS in West Africa. In certain areas of West Africa, both organisms are prevalent.
AIDS is characterized by opportunistic infections, malignancies, neurological dysfunction and a variety of other syndromes. During the course of the disease, which can be extended over years, the patient is severely debilitated, unable to work or fulfil simple domestic functions. Accordingly, there is a need in therapy for drugs which are active against lentivirus, in particular against human deficiency virus and/or able to ameliorate symptoms of lentivirus-induced disease in a human suffering from lentivirus infection.

WO 91/10649 provides ureido derivatives of poly-4-amino-2-carboxyl-1-methylpyrrole compounds which have angiogenesis inhibitor activity and TNF-α neutralizing activity. Accordingly, these prior art compounds can be useful in treating several pathological conditions in mammals where the growth of new blood vessels is detrimental and in which TNF-α is known to play a detrimental role. It has now been found that a selected class of compounds previously disclosed in WO 91/10649 are active as anti-lentivirus agents, in particular against HIV.
Accordingly the present invention provides the use of a compound of formula (I)

wherein each of m and n, being the same, is an integer of 1 to 3; and each of the R groups, which are the same, is a naphthyl group substituted by 1 to 3 sulfonic acid groups, or a pharmaceutically acceptable salt thereof, in the preparation of a medicament for use in the treatment of a human patient suffering from lentivirus infection. The said medicament may be for use as an anti-lentivirus agent, for example an anti-HIV agent. The said medicament may also be for use in ameliorating the symptoms of lentivirus-induced disease in a human patient suffering from lentivirus infection.

The present invention also provides a compound of formula (I), as defined above, or a pharmaceutically acceptable salt thereof, for use in the treatment of a human patient suffering from lentivirus infection. The compound or salt may be for use as an anti-lentivirus agent, for example an anti-HIV agent. The compound or salt may also be for use in ameliorating the symptoms
of lentivirus-induced disease in a human patient suffering from lentivirus infection.
The substituted naphthyl group is preferably a 5-, 6-, 7- or 8-naphthyl group, typically a 7- or 8-naphthyl group. When the naphthyl group is substituted by three sulfonic acid groups, the sulfonic acid substituents are preferably in the 1-, 3- and 5- or 1, 3- and 6- positions. When it is substituted by 2 acid groups the sulfonic acid substituents are preferably in the 1- and 3-, 1- and 5-, 3- and 5- or 3- and 6-positions. When it is substituted by one acid group the sulfonic acid substituent is preferably in the 1-, 3- or 5-position.
The invention also includes within its scope all the possible isomers, stereoisomers and their mixtures and the metabolites and the metabolic precursors or bioprecursors of the compounds of formula (I).
As already said, the invention includes within its scope also the pharmaceutically acceptable salts of the compounds of formula (I).
Examples of pharmaceutically acceptable salts are either those with inorganic bases, such as sodium, potassium, calcium and aluminium hydroxides, or with organic bases, such as lysine, arginine, N-methylglucamine, triethylamine, triethanolamine, dibenzylamine, methylbenzylamine, di-(2-ethyl-hexyl)-amine, piperidine, N-ethylpiperidine, N,N-diethylaminoethyl-
amine, N-ethylmorpholine, β-phenethyamine, N-benzyl-
β-phenethyamine, N-benzyl-N,N-dimethylamine and the
other acceptable organic amines.
Sodium and potassium salts are preferred.

As stated above the present invention also includes
within its scope pharmaceutically acceptable bio-
precursors (otherwise known as pro-drugs) of the
compounds of formula (I), i.e. compounds which have a
different formula to formula (I) above but which
nevertheless upon administration to a human being are
converted directly or indirectly in vivo into a
compound of formula (I).
Preferred compounds of formula (I) are the compounds
wherein m and n are each 2 and each of the R groups is
as defined above; and the pharmaceutically acceptable
salts thereof.

Examples of specific preferred compounds are:
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(3,5-
naphthalendisulfonic acid);
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(3,6-
naphthalendisulfonic acid);
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3,5-
naphthalentrisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3,6-naphthalentrisulfonic acid);

7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3-naphthalendisulfonic acid);

7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,4-naphthalendisulfonic acid);

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,4-naphthalendisulfonic acid);

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3,5-naphthalentrisulfonic acid);

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(5-naphthalensulfonic acid);

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3-naphthalendisulfonic acid);

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(3,5-naphthalendisulfonic acid);

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,5-
-naphthalendisulfonic acid);  
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(3-naphthalensulfonic acid);  
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1-naphthalensulfonic acid);  
2,2'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,5-naphthalendisulfonic acid);  
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,6-naphthalendisulfonic acid);  
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,6-naphthalendisulfonic acid);  
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,5-naphthalendisulfonic acid);  
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,5-naphthalendisulfonic acid);  
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,3-naphthalendisulfonic acid);  
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(3-naphthalensulfonic acid);
-imino(N-methyl-4,2-pyrrole)carbonylimino)bis(1,6-naphthalendisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,6-naphthalendisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,5-naphthalendisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(3,6-naphthalendisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,3,5-naphthalentrisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,4,6-naphthalentrisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,4,6-naphthalentrisulfonic acid);
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(1-naphthalensulfonic acid);
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(2-naphthalensulfonic acid);
7,7'-(carbonyl-bis(imo-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(3-naphthalensulfonic acid);
7,7'-(carbonyl-bis(imo-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(4-naphthalensulfonic acid);
7,7'-(carbonyl-bis(imo-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,4,6-naphthalentrisulfonic acid);
7,7'-(carbonyl-bis(imo-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3,6-naphthalentrisulfonic acid);
7,7'-(carbonyl-bis(imo-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,4,6-naphthalentrisulfonic acid);
7,7'-(carbonyl-bis(imo-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,3,5-naphthalentrisulfonic acid);
and the pharmaceutically acceptable salts thereof,
in particular the sodium or potassium salt.
The compounds of formula (I) and the pharmaceutically acceptable salts thereof, hereafter referred to as "the compounds of the invention" or "the active agents" have been found to be active as anti-lentivirus agents, in particular against Human Immunodeficiency Virus (HIV).
For instance the representative compounds of the invention

7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3,5-naphthalentrisulfonic acid) hexasodium salt;

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(3,5-naphthalendisulfonic acid) tetrasodium salt; and

7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3-naphthalendisulfonic acid) tetrapotassium salt, have been found to be active in the biological test described in J. Natl. Cancer Inst. 81:557-586, 1989.

A human patient can thus be treated by a method comprising administering thereto an effective amount of one of the compounds of the invention. In this way the compounds of the invention can be used to treat an infection attributable to a lentivirus, in particular a human immunodeficiency virus, especially HIV-1 or HIV-2.

In particular the compounds of the invention can be used in the preparation of an agent to be used in the treatment of a human patient who is seropositive diseased, stressed or pathological as a result of infection with a lentivirus, in particular HIV, or who is suffering from induced disease e.g. lymphadenopathy
syndrome (LS), AIDS-related complex (ARC), AIDS or Kaposi's sarcoma. The condition of a human patient can thus be ameliorated or improved.

The compounds of formula (I) or pharmaceutically acceptable salts thereof can be administered by usual routes, for example, parenterally, e.g. by intravenous injection or infusion, intramuscularly, subcutaneously, topically or orally, intravenous injection or infusion being preferred. The dosage depends on the age, weight and condition of the patient and on the administration route.

A suitable dosage for the compounds of formula (I), for example

7,7'-[(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-imino(N-methyl-4,2-pyrrole)carbonylimino)bis(1,3,5-naphthalentrisulfonic acid) or a pharmaceutically acceptable salt thereof, e.g. the hexasodium salt, for administration to adult humans is from about 0.5 to about 300 mg per dose 1-4 times a day.

The pharmaceutical composition used in the invention may comprise a compound of formula (I) or a pharmaceutically acceptable salt thereof, as the active substance, in association with one or more pharmaceutically acceptable excipients and/or carriers.

The pharmaceutical composition are usually prepared following conventional methods and are administered in
a pharmaceutically suitable form. For instance, solutions for intravenous injection or infusion may contain as carrier, for example, sterile water or, preferably, they may be in the form of sterile aqueous isotonic saline solutions.

Suspensions or solutions for intramuscular injections may contain, together with the active compound, a pharmaceutically acceptable carrier, e.g. sterile water, olive oil, ethyl oleate, glycols, e.g. propylene glycol, and, if desired, a suitable amount of lidocaine hydrochloride.

In the form for topical application, e.g. creams, lotions or pastes for use in dermatological treatment, the active ingredient may be mixed with conventional oleoginous or emulsifying excipients.

The solid oral forms, e.g. tablets and capsules, may contain, together with the active compound, diluents, e.g. lactose, dextrose, saccharose, cellulose, corn starch and potato starch; lubricants, e.g. silica, talc, stearic acid, magnesium or calcium stearate, and/or polyethylene glycols; binding agents, e.g. starches, arabic gums, gelatin, methylcellulose, carboxymethyl cellulose, polyvinylpyrrolidone; disaggregating agents, e.g. a starch, alginic acid, alginates, sodium starch glycolate; effervescent mixtures; dyestuffs; sweeteners; wetting agents, for
instance, lecithin, polysorbates, laurylsulphates; and, in general, non-toxic and pharmacologically inactive substances used in pharmaceutical formulations. Said pharmaceutical preparations may be manufactured in a known manner, for example by means of mixing, granulating, tabletting, sugar-coating, or film-coating processes.

The compounds of formula (I), or pharmaceutically acceptable salts thereof, may be used in a method of treatment of the above mentioned pathological conditions comprising both separate and substantially contemporaneous administration of a composition containing a compound of formula (I), or a pharmaceutically acceptable salt thereof, and a pharmaceutically composition containing different pharmaceutically active agents. The present invention therefore further provides products comprising a compound of formula (I) or a pharmaceutically acceptable salt thereof and a second active agent as a combined preparation for separate, simultaneous or sequential use in treating a human patient suffering from lentivirus infection, in particular infection with HIV. The second active agent is typically a drug that affects the pathogenesis of HIV-induced diseases.

For example the compounds of the invention may be employed with various active agents in particular those...
that affect reverse transcriptase, antimicrobial and antitumor agents or a mixture of two or more thereof. Drugs of interest include non-nucleoside reverse transcriptase inhibitors e.g. nevirapine; nucleoside derivatives e.g. zidovudine and didanosine; acyclovir; ribavirin; ascorbic acid; protease inhibitors; cytokines e.g. IL-1, IL-2, IL-3 or IL-4; growth factors; interferons e.g. alpha-or gamma interferon; antitumor agents e.g. doxorubicin, daunomycin, epirubicin, idarubicin, etoposide, fluorouracil, melphalan, cyclophosphamide, bleomycin, vinblastin and mitomycin; immuno-modulating agents, in particular immunostimulants, gamma globulin, immune globulin and monoclonal antibody products, antibiotics and antimicrobial products.

Typically, the antimicrobial agents may include a penicillin in conjunction with an aminoglycoside (e.g. gentamycin, tobramycin).

However several well known additional agents, e.g. cephalosporins, can be utilized.

The administration dosage of these drugs will vary, depending upon the disease status of the individual. The dosage regimen must therefore be tailored to the particulars of the patient's conditions, response and associate treatments in a manner which is conventional for any therapy, and may need to be adjusted in
response to changes in conditions and/or in light of other clinical conditions.

The compounds of formula (I) and the pharmaceutically acceptable salts thereof can be obtained according to WO 91/10649, for instance by reacting a compound of formula (II)

\[
\text{II}
\]

wherein \( n \) and \( B \) are as defined above, or a salt thereof, with a compound of formula (III)

\[
\text{III}
\]

wherein each of the \( X \) groups, which may be the same or different, is a good leaving group, and if desired, salifying a compound of formula (I) thus obtained; and/or, if desired, obtaining a free compound of formula (I) from a salt thereof.

A salt of a compound of formula (II) may be a salt with inorganic bases, for example those mentioned above as
pharmaceutically acceptable salts used in the invention, the sodium and potassium salts being the preferred.

Preferred examples of leaving groups, according to the meaning of X, are halogen atoms, in particular chlorine, or other easily displaceable groups such as imidazolyl, triazolyl, p-nitrophenoxy, trichlorophenoxy or trichloromethyloxy. The reaction of a compound of formula (II), or a salt thereof, with a compound of formula (III) is an analogy process and can be carried out according to well known methods; for example according to the conditions described in organic chemistry for this kind of reaction, i.e. for synthesis of urea derivatives.

Preferably when in a compound of formula (III) X is a halogen atom, e.g. chlorine, the reaction may be carried out at a molar ratio of compound (II), or a salt thereof: compound (III) from about 1.1 to about 1.4. The reaction is preferably performed in organic solvents such as dimethylsulphoxide, hexamethylphospho-triamide, dimethylacetamide or, preferably, dimethyl-formamide, or their aqueous mixtures, or in water/ dioxane or water/toluene mixtures, in the presence of either an organic base such as triethylamine or diiso- propylethylamine, or an inorganic base such as sodium bicarbonate or sodium acetate. The reaction temperature
may vary from about -10°C to about 50°C and the reaction time from about 1 to about 12 hours.

The compounds of formula (I) prepared according to the above described procedures may be purified by conventional methods such as by silica gel or alumina column chromatography, and/or by rechrystallization from organic solvents such as lower aliphatic alcohols or dimethylformamide.

Analogously salification of a compound of formula (I) can be carried out by known methods in the art, as well as the conversion of a salt of a compound of formula (I) into a free product and the conversion of a compound of formula (I) into a pharmacetically acceptable salt thereof.
The following examples further illustrate the present invention:

EXAMPLE 1

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(3,5-naphthalendisulfonic acid) tetrabismesium salt.

To a solution of 8-(amino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino)) (3,5-naphthalendisulfonic acid) disodium salt hydrochloride (1256 mg, 2 mmols) in water (60 ml) and dioxane (20 ml), NaOH 1N (2 ml) and sodium acetate (328 mg, 4 mmols) was added under stirring.

The whole was cooled to 5°C with an ice bath, then a solution of bis(trichloromethyl)carbonate (149 mg, 0.5 mmols) in dioxane (15 ml) was added dropwise in an hour. The mixture was stirred for 2 hours at room temperature. The solvents were evaporated under vacuum and the residue was chromatographed on a silica gel column with methylene chloride : methanol : water (300:200:20) as eluant, affording 856 mg of the title compound;

N.M.R. (DMSO-d$_6$): 5 3.85 (6H,s); 6.83 (1H,d,J=1.8);
7.06 (1H,d,J=1.8); 7.26 (1H,d,J=1.8); 7.38 (1H,d,J=1.08).
By proceeding analogously, the following compounds can be prepared:

7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-imino(N-methyl-4,2-pyrrole)carbonylimino))bis(3,5-naphthalendisulfonic acid) tetrainsodium salt;

N.M.R. (DMSO-d<sub>6</sub>): 6 3.85 (3H,s); 3.90 (3H,s); 6.81 (1H,d,J=1.8); 6.90 (1H,d,J=1.8); 7.12 (1H,d,J=1.8); 7.32 (1H,d,J=1.8); 7.70 (1H,dd,J=1.6, J=8.6); 7.80 (1H,d, J=8.6); 8.11 (1H,d,J=1.6); 8.15 (1H, bs), 8.58 (1H,d,J=1.7); 8.78 (1H,d, J=1.7); 10.05 (1H,bs); 10.94 (1H,bs);
- 20 -

F.A.B. M.S. m/z: 1209, M^+H; 1187, M^+-Ne+H;
U.V. (H_2O) nm: λ max (E 1% 1 cm\(^{-1}\)) : 321 (416); 231 (721);

7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolocarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(3,6-
naphthalendisulfonic acid) tetrasodium salt;

N.M.R. (DMSO-d_6): 6 3.85 (3H, s); 3.93 (3H, s); 6.81
(1H, d, J=1.8); 6.91 (1H, d, J=1.8);
7.08 (1H, d, J=1.8); 7.51
(1H, d, J=1.8); 7.68 (1H, dd, J=1.6, J=8.6);
7.78 (1H, d, J=8.6); 8.04
(1H, s); 8.12 (1H, bs); 8.23 (1H, s);
8.89 (1H, s); 10.02 (1H, bs); 10.98
(1H, bs);

F.A.B. M.S. m/z: 1209, M^+H; 1187, M^+-Ne+H;
U.V. (H_2O) nm: λ max (E 1% 1 cm\(^{-1}\)) : 323,4 (540); 227,7
(732);

7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolocarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3,5-
naphthalentrisulfonic acid) hexasodium salt;
N.M.R. (DMSO-d$_6$): $\delta$ 3.85 (3H,s); 3.89 (3H,s); 6.78 (1H,d,J=1.8); 7.08 (1H,d,J=1.8); 7.22 (1H,d,J=1.8); 7.35 (1H,d,J=1.8); 8.25 (1H,d,J=1.9); 8.30 (1H,bs); 8.36 (1H,bs); 9.00 (1H,bs); 9.07 (1H,d,J=1.6); 9.82 (1H,bs); 10,20 (1H,bs);

U.V. (H$_2$O) nm : $\lambda$ max (E $^{1%}_{1cm}$) : 320 (374); 254 (444);

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-imino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3,6-naphthalentrisulfonic acid); hexasodium salt;

N.M.R. (DMSO-d$_6$): $\delta$ 3.84 (3H,s); 3.88 (3H,s); 6.81 (1H,d,J=1.8); 7.07 (1H,d,J=1.8); 7.11 (1H,d,J=1.8); 7.42 (1H,d,J=1.8); 7.87 (1H,d,J=1.9); 7.87 (1H,d,J=1.9); 8.06 (1H,d,J=1.9); 8.12 (1H,bs); 8.33 (1H,d,J=1.9); 8.54 (1H,d,J=1.9); 9.93 (1H,bs); 12.19 (1H,bs);

U.V. (H$_2$O) nm : $\lambda$ max (E $^{1%}_{1cm}$) : 320 (374); 254 (444);

7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-imino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3-naphthalendisulfonic acid) tetrapotassium salt;
I.R. (KBr) cm⁻¹: 3450 (b); 1650; 1580; 1530; 1190; 1030

N.M.R. (DMSO-d₆): δ 3.84 (3H,s); 3.87 (3H,s); 6.80 (1H,d); 7.05 (1H,d); 7.18 (1H,d); 7.33 (1H,d); 7.86 (2H,m); 8.00 (1H,d,); 8.16 (1H,bs); 8.21 (1H,d); 8.95 (1H,bs); 9.86 (1H,bs); 10.21 (1H,bs);

U.V. (H₂O) nm: λ max (E₁%₁cm⁻¹): 316.8 (371); 248.95 (444)

F.A.B. M.J. m/z: 1273 (M⁺+H); 1311 ((M⁺+K);

7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-imino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,4-naphthalendisulfonic acid) tетrasodium salt;

N.M.R. (DMSO-d₆): δ 3.85 (3H,s); 3.89 (3H,s); 6.81 (1H,d,J=1.7); 7.06 (1H,d,J=1.7); 7.22 (1H,d,J=1.7); 7.33 (1H,d,J=1.7); 7.38 (1H,dd,J=2.0,J=9.5); 7.92 (1H,bs); 8.10 (1H,d,J=1.7); 8.20 (1H,bs); 8.32 (1H,d,J=2.0); 8.69 (1H,d,J=9.4); 9.88 (1H,bs); 10.08 (1H,bs);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-imino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,4-naphthalendisulfonic acid) tetrasodium salt;

N.M.R. (DMSO-d$_6$): δ 3.85 (6H, s); 6.81 (1H, d, J = 1.7 Hz); 7.06 (1H, d, J = 1+Hz); 7.25 (1H, d, J = 1.7 Hz); 7.34 (1H, d, J = 1.7 Hz); 7.4 + 7.6 (2H, m); 8.14 (1H, bs); 8.25 (2H, s,); 8.73 (1H, dd, J = 13 Hz, J = 8.3 Hz); 9.92 (1H, bs); 10.07 (1H, bs);

U.V. (H$_2$O) nm : λ max (E$_{1%}^{\text{1cm}}$) : 307 (435); 231 (932)

F.A.B. m/z : 1209 (M$^+$+1); 1231 (M$^+$+Ne);

1128 (M$^+$-SO$_3$);

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-imino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3,5-naphthalenetrисulfionic acid) hexasodium salt;
I.R. (KBr) cm⁻¹ : 3440 b, 1640, 1590, 1190, 1030

N.M.R. (DMSO-d₆): δ 3.80 (3H, s); 3.83 (3H, s); 6.80 (1H, d); 7.06 (2H, m); 7.40 (1H, d); 7.88 (1H, d); 7.99 (1H, d); 8.02 (1H, bs); 8.57 (1H, d); 9.33 (1H, d); 9.91 (1H, bs); 12.29 (1H, bs).

U.V. (H₂) nm : λ max (E ¹%₁cm⁻¹) : 311 (266); 233 (551)

F.A.B. M.S. m/z 1411, M⁻-H; 1389, M⁻-Na;

8,8'-((carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-imino(N-methyl-4,2-pyrrole)carbonylimino))bis(5-naphthalensulfonic acid) disodium salt;

N.M.R. (DMSO-d₆): δ 3.85 (6H, s); 6.84 (1H, d, J=1.8); 7.05 (1H, d, J=1.8); 7.25 (1H, d, J=1.8); 7.35 (1H, d, J=1.8); 7.46-7.56 (3H, m); 7.92-8.00 (2H, m); 8.15 (1H, bs); 8.87 (1H, m); 9.89 (1H, bs); 10.03 (1H, bs);

U.V. (H₂O) nm : λ max (E ¹%₁cm⁻¹) : 310 (531); 227 (1043)

F.A.B. M.S. m/z : 1005, (M⁺+H); 1027 (M⁺+Ne); 512;
8,8"-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3-naphthalendisulfonic acid) tetrainsodium salt;

N.M.R. (DMSO-\(d_6\)): \(\delta\) 3.84 (3H, s); 3.86 (3H, s); 6.81 (1H, d, J=1.8); 7.08 (2H, bs); 7.41 (1H, d, J=1.8); 7.50 (1H, t, J=7.0); 7.78 (1H, d, J=7.0); 8.02 (1H, d, J=7.0); 8.11 (2H, m); 8.53 (1H, d, J=2.02); 9.93 (1H, bs); 12.21 (1H, bs);

U.V. (H\(_2\)O) nm : \(\lambda\) max (E\(_{1\%}\) cm\(^{-1}\)) : 309.05 (403); 229, 65;

F.A.B. M.S. m/z : 1209, M\(^+\)+H; 1231, M\(^+\)+Ne; 1187, M\(^+\)-Ne+H; 1129; 640; 618; 614; 592;

2,2"-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,5-naphthalendisulfonic acid) tetrainsodium salt;

N.M.R. (DM \& 0-\(d_6\)): 3.85 (3H, s); 3.91 (3H, s); 6.90 (1H, d, J=1.8); 6.98 (1H, d, J=1.8); 7.09 (1H, d, J=1.8); 7.35 (1H, dd, J=7, J=8.8); 7.47 (1H, d, J=1.8); 7.9 (1H, d, J=7); 9.15
- 26 -

(1H, bs); 8.67-8.82 (2H, dd, J=9.6); 8.99 (1H, d, J=8.8); 9.98 (1H, bs); 12.64 (1H, bs).

F.A.B. M.S.: m/z 1207, [M-H]$^-$; 1185, [M-23]$^-$; 1105

(M-SO$_3$Na)$^-$.

U.V. (H$_2$O): nm : λ max 298; (E$_{1\%}^{1\text{cm}}$ ) 522;

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,5-
naphthalendisulfonic acid) tetradsodium salt;

I.R. (KBr) cm$^{-1}$: 3440 b, 1660, 1640, 1585, 1180, 1030.

N.M.R. (DMSO-d$_6$): δ 3.84 (3H,s); 3.85 (3H,s); 6.80 (1H,d); 7.07 (2H,m); 7.41 (2H,m);

7.92 (2H,dd); 8.12 (1.12 (1H,s); 8.27 (1H,dd); 9.07 (1H,dd); 9.90 (1H,bs); 12.27 (1H,bs).

U.V. (H$_2$O) nm : λ max (E$_{1\%}^{1\text{cm}}$) : 316 (331); 229 (478)

F.A.B. -M.S. m/z : 1209, M$^+$+1; 1231, M$^+$+23; 1128, M-80;

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(3-
naphthalensulfonic acid) disodium salt;
I.R. (KBr) cm\(^{-1}\): 3430 b, 1640, 1585, 1200, 1030

N.M.R. (DMSO-\(d_6\)): \(\delta\) 3.84 (6H, s); 6.86 (1H, d); 7.05 (1H, d); 7.24 (1H, d); 7.35 (1H, d); 7.54 (2H, m); 7.70 (1H, dd); 7.90 (2H, m); 8.15 (1H, d); 8.15 (1H, d); 8.95 (1H, bs); 9.94 (1H, bs); 10.03 (1H, bs).

U.V. (\(H_2O\)) nm: \(\lambda\) max (\(E_{1\%}^{1\text{cm}}\)) : 304 (366); 226 (1002)

F.A.B. M.S.: m/z 1005, M\(^+\)+H; 1027, M\(^+\)+2Na;

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolocarbonyl-imino(N-methyl-4,2-pyrrole)carbonylimino))bis(1-naphthalensulfonic acid) disodium salt;

N.M.R. (DMSO-\(d_6\)): \(\delta\) 3.84 (3H, s); 3.85 (3H, s); 6.82 (1H, d, J=1.8); 7.06 (1H, d, J=1.8);
7.09 (1H, d, J=1.8); 7.39-7.54 (3H, m); 7.74 (1H, dd, J=1.3, J=.3, J=8.2); 7.93-8.02 (2H, m); 8.13 (1H, bs); 8.26 (1H, dd, J=1.5, J=7.3);
9.93 (1H, bs); 12.20 (1H, bs);

F.A.B. M.S.: m/z 1005, M\(^+\)+H; 1027, M\(^+\)+Ne;

U.V. (\(H_2O\)) nm: \(\lambda\) max (\(E_{1\%}^{1\text{cm}}\)) : 312 (490); 224 (831);
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,6-naphthalendisulfonic acid) tetraysodium salt;

7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,6-naphthalendisulfonic acid) tetrasydodium salt;

7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,5-naphthalendisulfonic acid) tetrasydodium salt;

7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,5-naphthalendisulfonic acid) tetrasydodium salt;

7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,3-naphthalendisulfonic acid) tetrasydodium salt;

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,6-naphthalendisulfonic acid) tetrasydodium salt;

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,6-naphthalendisulfonic acid) tetrasydodium salt;

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,5-naphthalendisulfonic acid) tetrasydodium salt;

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(3,6-
naphthalendisulfonic acid) tetraysodium salt;
8,8′-(carbonyl-bis(Imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,3,5-
naphthalentrisulfonic acid) hexaysodium salt,

8,8′-(carbonyl-bis(Imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,4,6-
naphthalentrisulfonic acid) hexaysodium salt;
8,8′-(carbonyl-bis(Imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,4,6-
naphthalentrisulfonic acid) hexaysodium salt;

7,7′-(carbonyl-bis(Imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(1-
naphthalensulfonic acid) disodium salt;
7,7′-(carbonyl-bis(Imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(2-
naphthalensulfonic acid) disodium salt;
7,7′-(carbonyl-bis(Imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(3-
naphthalensulfonic acid) disodium salt;

7,7′-(carbonyl-bis(Imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(4-
naphthalensulfonic acid) disodium salt;
7,7′-(carbonyl-bis(Imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,4,6-
naphthalentrisulfonic acid) hexaysodium salt;
7,7′-(carbonyl-bis(Imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3,6-
naphthalentrisulfonic acid) hexasodium salt;
7,7'-((carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,4,6-
naphthalentrisulfonic acid) hexasodium salt; and
7,7'-((carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,3,5-
naphthalentrisulfonic acid) hexasodium salt.

EXAMPLE 2

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-
imino(N-methyl-4,2-pyrrole)carbonylimino))-bis(3,5-
naphthalenedisulfonic acid).

A solution of 8,8'-(carbonyl-bis(imino-N-methyl-4,2-
pyrrolecarbonyl-imino(N-methyl-4,2-pyrrole)carbonyl-
imino))-bis(3,5-naphthalenedisulfonic acid) tetraso-
dium salt (400 mg) in water (10 ml), is chromatographed
on an Amberlite 1R-120(H) column (20 ml), with water as
eluent.
The solution is evaporated to dryness in vacuum,
affording 0.3 g of the title compound.
EXAMPLE 3

Intramuscular injection 40 mg/ml.

An injectable pharmaceutical preparation can be manufactured by dissolving 40 g of 8,8'-\(\text{carbonyl-bis(imino-N-methyl-4,2-pyrrolecarbonyl-imino(N-methyl-4,2-pyrrole)carbonylimino)})\)-bis(3,5-naphthalene-disulfonic acid) tetrasodium salt in water for injection (1000 ml) and sealing ampoules of 1-10 ml.
CLAIMS

1. Use of a compound of formula (I)

\[
\text{R-\(\text{HN-C\(\text{O}\)}}_{\text{m}}\text{HN-C\(\text{O}\)}}_{\text{n}}\text{NH-R}
\]

wherein

each of \(m\) and \(n\), being the same, is an integer of 1 to 3; and each of the \(R\) groups, which are the same, is a naphthyl group substituted by 1 to 3 sulfonic acid groups, or a pharmaceutically acceptable salt thereof; in the preparation of a medicament for use in the treatment of lentivirus infection.

2. Use according to claim 1 wherein the lentivirus is a human immunodeficiency virus.

3. Use according to claim 1 wherein \(m\) and \(n\) are each 2.

4. Use according to any one of claims 1 to 3 wherein the compound is:
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(3,5-naphthalendisulfonic acid);

7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(3,6-naphthalendisulfonic acid);

7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3,5-naphthalentrisulfonic acid);

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3,6-naphthalentrisulfonic acid);

7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3-naphthalendisulfonic acid);

7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,4-naphthalendisulfonic acid);

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,4-naphthalendisulfonic acid);

8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3,5-naphthalentrisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(5-naphthalensulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3-naphthalendisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(3,5-naphthalendisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,5-naphthalendisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(3-naphthalensulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1-naphthalensulfonic acid);
2,2'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,5-naphthalendisulfonic acid);
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,6-naphthalendisulfonic acid);
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,6-naphthalendisulfonic acid);
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,5-naphthalendisulfonic acid);
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,5-naphthalendisulfonic acid);
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,3-naphthalendisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,6-naphthalendisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,6-naphthalendisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,5-naphthalendisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(3,6-naphthalendisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,3,5-naphthalentrisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,4,6-naphthalentrisulfonic acid);
8,8'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,4,6-naphthalentrisulfonic acid);
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1-naphthalensulfonic acid);
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2-naphthalensulfonic acid);
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(3-naphthalensulfonic acid);
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(4-naphthalensulfonic acid);
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,4,6-naphthalentrisulfonic acid);
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(1,3,6-naphthalentrisulfonic acid);
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,4,6-naphthalentrisulfonic acid); or
7,7'-(carbonyl-bis(imino-N-methyl-4,2-pyrrole-carbonylimino(N-methyl-4,2-pyrrole)carbonylimino))bis(2,3,5-naphthalentrisulfonic acid);
or a pharmaceutically acceptable salt thereof.

5. A use according to any one of claims 1 to 4 wherein the pharmaceutically acceptable salt is the sodium or potassium salt.

6. Use according to any one of claims 1 to 5 wherein the medicament is for ameliorating the symptoms manifested by a human patient who is seropositive diseased, stressed or pathological as a result of infection with a lentivirus or who is suffering from lentivirus-induced disease.
7. Products containing a compound of formula (I) or a pharmaceutically acceptable salt thereof as defined in any one of claims 1 and 3 to 5 and a second active agent as a combined preparation for simultaneous, separate or sequential use in the treatment of a human patient suffering from lentivirus infection.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC 5 A61K31/40

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
IPC 5 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<tbody>
<tr>
<td>1 X</td>
<td>WO A91 10649 (FARMITALIA CARLO ERBA SRL) 25 July 1991 cited in the application see page 11, line 4 - line 31; claims 4,5 see page 14</td>
<td>1-7</td>
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<tr>
<td>7 Y</td>
<td>JOURNAL OF EXPERIMENTAL PATHOLOGY vol. 5, no. 3, 1990 pages 111 - 122 LAU ET AL 'The Role of Interferon and Tumor Necrosis Factor in the Pathogenesis of AIDS' see page 117, paragraph 2 see conclusion</td>
<td>1-7</td>
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X Further documents are listed in the continuation of box C.  
X Patent family members are listed in annex.

* Special categories of cited documents:
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  *A* document member of the same patent family

Date of the actual completion of the international search 19 July 1994
Date of mailing of the international search report 04. 08, 94

Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax (+31-70) 340-3018

Authorized officer Uiber, P

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<td>AIDS RESEARCH AND HUMAN RETROVIRUSES vol. 8, no. 2, 1992 pages 191 - 197</td>
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<td></td>
<td>POLI ET AL 'The Effect of Cytokines and Pharmacologic Agents on Chronic HIV infection' see page 192, column 2, line 24 - line 31</td>
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<td>A</td>
<td>WO,A,92 13838 (SYNPHAR LABORATORIES, INC) 20 August 1992 see claims 1,19</td>
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