[Patent Literature 1] Japanese Patent Application Laid-Open (Kokai) Publication No. 2001-10978

[Patent Literature 2] WO2008/001851

[Non Patent Literature 1] Hiizu Iwamura, "Molecular Design Aimed at Organic Ferromagnetic Substances," Feb. 1989 issue, p.p. 76-88

[Non Patent Literature 2] Krsity Cochran et al., Structural Chemistry, 13(2002), p.p. 133-140

[Summary of Invention]

[Technical Problem]

[0028]

However, Non Patent Literature 1 and 2 do not state that the drug itself becomes magnetic.

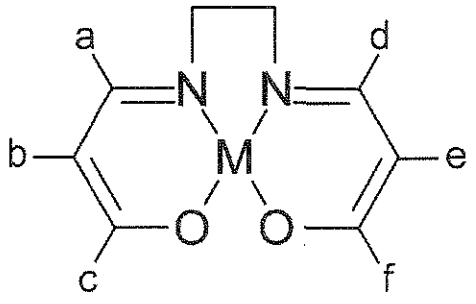
[0029]

It is an object of the present invention to provide a new self-magnetic metal-salen complex compound and its derivatives.

[Solution to Problem]

[0030]

In order to achieve the above-described object, the present invention is a new self-magnetic metal-salen complex compound represented by formula (II),



(II),

wherein M is Fe, and

each of a-f is a methyl group or a hydrogen, or

each of b, e is a hydrogen and a, c, d and f is a methyl group.

In another aspect, the present invention provides a magnetic drug containing the metal-salen complex compound stated herein, the magnetic drug being guided to a target tissue by administering the magnetic drug into a body and then irradiating the magnetic drug with an external magnetic field.

In yet another aspect, the present invention provides an antitumor drug containing the magnetic drug stated herein as an active ingredient.

In yet another aspect, the present invention provides a magnetic drug guiding system comprising a means for supplying a magnetic field to the drug stated herein and introduced into a body and a means for moving the magnetic field to an affected site.

In yet another aspect, the present invention provides a magnetic compound comprising a metal complex, the compound being useful for utilization of magnetism of the compound without using magnetic support made from magnetic bodies, wherein structure of the metal complex comprises structure of N,N'-ethylenebis(acetylacetoneiminate) metal, wherein the metal is Fe.

Also disclosed is~~characterized in that it is~~ a new self-magnetic metal-salen complex compound represented by the following formula (I).

(I)

