

Title (en)

NOVEL HYDRAZONE-BASED AND OXIME-BASED FLUORESCENT AND CHROMOPHORIC/PRO-FLUORESCENT AND PRO-CHROMOPHORIC REAGENTS AND LINKERS

Title (de)

NEUARTIGE AUF HYDRAZON BASIERENDE UND AUF OXIM BASIERENDE FLUORESZIERENDE UND CHROMOPHORISCHE BZW. PROFLUORESZIERENDE UND PROCHROMOPHORISCHE REAGENTIEN UND LINKER

Title (fr)

NOUVEAUX RÉACTIFS ET LIEUX FLUORESCENTS ET CHROMOPHORES/PRO-FLUORESCENTS ET PRO-CHROMOPHORES A BASE HYDRAZONE ET D'OXIMES

Publication

EP 2150858 A4 20130102 (EN)

Application

EP 07794844 A 20070514

Priority

US 2007011529 W 20070514

Abstract (en)

[origin: WO2008140452A1] Conjugationally extended hydrazine compositions of the formula (RR₂)N(H)_n(NH₂)_n, fluorescent hydrazone compositions of the formula (RR₂)NN=C (R₁_{R₂}), methods of the formation of hydrazones from the reaction of conjugationally extended hydrazines with conjugationally extended carbonyls and methods of their use in assays systems are described. Use of these conjugationally extended hydrazine and oxime compositions for direct colorimetric and fluorometric assays wherein a chromophore or the fluorophore is incorporated into the linker that is positioned between a reactive linking moiety and a biotin molecule. More specifically the linker comprises one molecule of a high affinity binding pair such as for example biotin of the biotin/avidin high affinity binding pair, connected to a spacer molecule such as for example a length of polyethyleneglycol followed by a pro-chromophoric, chromophoric, pro-fluorescent or fluorescent moiety connected to an amino-, thiol- or carbohydrate-reactive moiety such as for example succinimidyl, maleimido or aminoxy group respectively, that may covalently link to a biomolecule.

IPC 8 full level

G03G 5/00 (2006.01); **C09B 26/02** (2006.01); **G03G 15/06** (2006.01)

CPC (source: EP)

C07D 405/14 (2013.01); **C07D 495/04** (2013.01); **C07F 9/6561** (2013.01); **C07J 43/003** (2013.01); **C07J 51/00** (2013.01); **C09B 26/02** (2013.01); **G01N 33/54353** (2013.01); **G01N 33/582** (2013.01)

Citation (search report)

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- [X] US 5629421 A 19970513 - TAKESUE ATSUSHI [JP], et al
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- [X] KATZ L ET AL: "HYDRAZINE DERIVATIVES. I. BENZALTHIO- AND BISBENZALDITHIO-SALICYLHYDRAZIDES", JOURNAL OF ORGANIC CHEMISTRY, ACS, US, vol. 18, no. 10, 1 January 1953 (1953-01-01), pages 1380 - 1402, XP002223788, ISSN: 0022-3263, DOI: 10.1021/JO50016A019
- [Y] SCOTT W L ET AL: "Synthesis of reagents for the one step incorporation of hydrazide functionality onto the lysine residues of proteins, and their use as linkers for carbonyl containing molecules", BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, PERGAMON, ELSEVIER SCIENCE, GB, vol. 6, no. 13, 9 July 1996 (1996-07-09), pages 1491 - 1496, XP004175739, ISSN: 0960-894X, DOI: 10.1016/S0960-894X(96)00265-X
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Citation (examination)

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- US 2004039182 A1 20040226 - CHAMBERLAIN TERENCE [US], et al

Designated contracting state (EPC)

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DOCDB simple family (application)

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