

## Title (en)

CROSS-LINKING OLIGONUCLEOTIDES FOR ENZYME-MEDIATED TRIPLE STRAND FORMATION.

## Title (de)

VERNETZEN VON OLIGONUKLEOTIDEN FÜR ENZYMVERMITTELTE DREIFACHSTRANGBILDUNG.

## Title (fr)

OLIGONUCLEOTIDES A RETICULATION POUR LA FORMATION DE TRIPLE BRIN A MEDIATION ENZYMATIQUE.

## Publication

**EP 0661979 A4 19950913 (EN)**

## Application

**EP 92918930 A 19920819**

## Priority

- US 9207101 W 19920819
- US 74813891 A 19910821

## Abstract (en)

[origin: WO9303736A1] The invention disclosed is directed to cross-linking between specific sites on adjoining oligonucleotides or oligodeoxynucleotides wherein the nucleoside monomers used to effect the cross-linking are (alkylating substituent substituted) pyrazolo[3,4-d]pyrimidine ribosides or 2'-deoxyribosides. This cross-linking is assisted by the presence in mammalian host of a recombination enzyme such as RecA. The cross-linking of either double or triple stranded nucleic acids is expected to have utility in the inhibiting the expression of the targeted nucleic acids in vivo and as a diagnostic tool as well.

## IPC 1-7

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## IPC 8 full level

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## C-Set (source: EP)

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## Citation (search report)

- [X] WO 9014353 A1 19901129 - MICROPROBE CORP [US]
- [X] WO 8502628 A1 19850620 - HYDROCARBON RESEARCH INC [US]
- [X] EP 0266099 A2 19880504 - UNIV JOHNS HOPKINS [US]
- [Y] EP 0267996 A1 19880525 - TAMIR BIOTECHNOLOGY LTD [IL]
- [X] KNORRE, D. G. ET AL: "Complementarily addressed modification of double-stranded DNA in a triple-stranded complex (English translation of the title)", DOKL. AKAD. NAUK SSSR, 1988, VOL. 300, NO. 4, PAGES 1006-9 (BIOCHEM.)
- [PX] PETRIE CR ET AL: "A novel biotinylated adenylate analogue derived from pyrazolo[3,4-d]pyrimidine for labeling DNA probes.", BIOCONJUG CHEM, NOV-DEC 1991, VOL. 2, NO. 6, PAGES 441-6, US
- [Y] SIDWELL R W ET AL: "In vivo antiviral properties of biologically active compounds. II. Studies with influenza and vaccinia viruses", APPL. MICROBIOL., 1968, VOL.16, NO. 2, PAGES 370-92
- [Y] SEELA F ET AL: "Poly(adenylic acids) containing the antibiotic tubercidin -- base pairing and hydrolysis by nuclease S1.", NUCLEIC ACIDS RES, 25-2-1982, VOL. 10, NO. 4, PAGES 1389-97, GB
- [Y] ELSNER H ET AL: "Photochemical crosslinking of protein and DNA in chromatin. II. Synthesis and application of psoralen-cystamine-arylazido photocrosslinking reagents.", ANAL BIOCHEM, SEP 1985, VOL. 149, NO. 2, PAGES 575-81, US
- [A] TURCHINSKII, M. F. ET AL: "Conversion of noncovalent interactions in nucleoproteins into covalent bonds. III. Bisulfite-induced formation of polynucleotide-protein crosslinks in MS2 bacteriophage virions", FEBS (FED. EUR. BIOCHEM. SOC.) LETT., 1974, VOL. 38, NO. 3, PAGES 304-7
- [A] SONENBERG N. ET AL: "Reovirus mRNA can be covalently crosslinked via the 5' cap to proteins in initiation complexes", PROC. NATL. ACAD. SCI. U. S. A., vol. 74, no. 10, US, pages 4288 - 4292
- See references of WO 9303736A1

## Designated contracting state (EPC)

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