

Internal distribution code:

- (A) Publication in OJ
(B) To Chairmen and Members
(C) To Chairmen
(D) No distribution

D E C I S I O N
of 9 June 2005

Case Number: T 0342/02 - 3.3.4

Application Number: 89103252.6

Publication Number: 0330221

IPC: C12Q 1/68

Language of the proceedings: EN

Title of invention:
End labeled nucleotide probe

Patentee:
ENZO BIOCHEM, INC.

Opponent:
Akzo Nobel N.V.

Headword:
End-labeled nucleotide probe/ENZO

Relevant legal provisions:
EPC Art. 123(2)(3)

Keyword:
"Unallowable amendment - (no)"
"Extension of scope of protection - (no)"

Decisions cited:
-

Catchword:
-



Case Number: T 0342/02 - 3.3.4

D E C I S I O N
of the Technical Board of Appeal 3.3.4
of 9 June 2005

Appellant: ENZO BIOCHEM, INC.
(Proprietor of the patent) 325 Hudson Street
New York
N.Y. 10014 (US)

Representative: VOSSIUS & PARTNER
Postfach 86 07 67
D-81634 München (DE)

Respondent(s): Akzo Nobel N.V.
(Opponent) Velperweg 76
NL-6824 BM Arnhem (NL)

Representative: Prins, Hendrik Willem
Arnold & Siedsma
Advocaten en Octrooigemachtigden
Postbus 18558
NL-2502 EN Den Haag (NL)

Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 17 January 2002
revoking European patent No. 0330221 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chair: U. M. Kinkeldey
Members: G. L. Alt
S. C. Perryman

Summary of Facts and Submissions

I. The appeal was lodged by the patent proprietor (appellant) against the decision of the Opposition Division to revoke the European Patent No. 0 330 221, titled "End-labelled nucleotide probe", pursuant to Article 102(1) EPC because the main request (claims as granted) and the three auxiliary requests did not comply with the requirements of Article 123(2) EPC due to an unallowable disclaimer.

II. Claims 1, 4, 5 and 9 as originally filed read:

"1. An oligo- or polynucleotide having at least one biotin directly or indirectly attached to each of the 5' and 3' end nucleotides thereof."

"4. The oligo- or polynucleotide of claim 1 wherein at least one of said biotins is attached to the terminal nucleotide through a non-interfering linkage group."

"5. The oligo- or polynucleotide of claim 4 wherein said biotin attachment comprises biotin-11-dUMP."

"9. A nucleic acid hybridization assay composition comprising an oligo- or polynucleotide of any of claims 1-8 and a preformed avidin or streptavidin detectable molecule complex."

III. The patent as granted contained 18 claims. Claim 1 thereof read:

"1. An oligo- or polynucleotide having at least one non-radioactive moiety (a) directly or (b) indirectly

attached to each of the 5' and 3' end nucleotides thereof, whereby in case (b) where the linkage is through the phosphate group of the end nucleotides, none of the linkage groups is a single lysine residue or polylysine."

- IV. In a communication pursuant to Article 11(1) of the Rules of Procedure of the Boards of Appeal the board gave its preliminary view that the disclaimer did not seem to be allowable.
- V. In reply the appellant filed a new main and an auxiliary request one month before oral proceedings.
- VI. At the beginning of the oral proceedings the appellant filed a new main request to replace the two previous requests. The request contained 4 independent claims (two to an oligo- or polynucleotide, one to a nucleic acid hybridization assay composition and one to a method for detecting a target nucleic acid sequence in a sample) and 10 dependent claims.

Claims 1, 3, 5, 8, 10, 11 and 13 of the main request read:

"1. An oligo- or polynucleotide which
(a) has at least one non-radioactive detection moiety directly attached to each of the 5' and 3' end nucleotides thereof, or
(b) has at least one non-radioactive detection moiety being biotin as biotin-11-dUMP attached to each of the 5' and 3' end nucleotides thereof."

"3. The oligo- or polynucleotide of claim 1 or 2 comprising at least two to five of said biotin or biotin analogue attached to at least one end thereof."

"5. The oligo- or polynucleotide of claim 2 comprising two to five of said biotin or biotin analogue attached to each end thereof."

"8. An oligo- or polynucleotide which
(a) has at least one non-radioactive detection moiety directly attached to each of the 5' and 3' end nucleotides thereof external to a target hybridisation region of said oligo- or polynucleotide or
(b) has at least one non-radioactive detection moiety being biotin as biotin-11-dUMP attached to each of the 5' and 3' end nucleotides thereof external to a target hybridisation region of said oligo- or polynucleotide."

"10. A nucleic acid hybridization assay composition comprising an oligo- or polynucleotide of any of claims 1 - 9 and a preformed avidin or streptavidin detectable molecule complex."

"11. The composition of claim 10 wherein the detectable molecule is selected from a fluorochrome, chromogen or enzyme."

"13. A method for detecting a target nucleic acid sequence in a sample comprising:
rendering the nucleic acid in said sample in single-stranded form;
contacting said single stranded nucleic acid under hybridizing conditions with

(i) an oligo- or polynucleotide probe which has at least one non-radioactive detection moiety being biotin as biotin-11-dUMP attached to each of the 5' and 3' end nucleotides thereof
said probe being capable of hybridizing to said target nucleic acid sequence, and
(ii) a preformed avidin or streptavidin detectable molecule complex; and
detecting any hybridized complexes, thereby detecting the target nucleic acid sequence."

VII. The appellant's arguments as far as they are relevant for the present decision may be summarized as follows:

Amendments - Article 123(2) EPC

The amendments had all a basis in the application documents as originally filed.

In particular: Part a) of claim 1 could be found on page 4 and part b) was a combination of claims 1, 4 and 5 as originally filed. The change in claims 10, 11 and 13 from "molecular" to "molecule" was supported by claims 9 and 10 as filed. The term "biotin-11-allylamine-dUMP" in claims 1, 8 and 13 was deleted because this term and the term "biotin -11-dUMP" denoted the same compound.

VIII. The respondent's arguments as far as they are relevant for the present decision may be summarized as follows:

Admissibility of the new main request into the proceedings - Article 114(2) EPC

The new request should not be admitted because it was already difficult to deal properly with the amendments of the previous request.

Abandonment of subject-matter at grant

The expression in part (a) of claim 1 "non-radioactive detection moiety" was present in the application documents as originally filed, but was taken out of the claims and description at the grant of the patent. This was to be interpreted as a deliberate abandonment of this feature and the corresponding subject-matter. In such a case a patent proprietor should not be allowed to re-instate this feature even though it may be present in the application documents as originally filed. Otherwise third parties would be left in uncertainty about the real scope of the patent.

Amendments - Article 123(2) EPC

Part (b) of claim 1 did not have a basis in the application documents as originally filed. The examples disclosed a polynucleotide being labelled by biotin-11-dUMP either at the 5' or at the 3' end (for example compounds 9 and 15 in Table 1, respectively), but not at both ends in the same molecule as required by part (b) of claim 1.

As far as a combination of claims 1, 4 and 5 as a basis is concerned, in order to arrive at the subject-matter characterized in part (b) of claim 1, selections between the possible alternatives covered by the claim had to be made. A first selection was that biotin attachment was in the form of biotin-**11-dUMP** (claim 5).

The second selection was that biotin was attached to **both** ends. However, the necessity of making selections was incommensurate with the notion of a clear and unambiguous disclosure of an amendment.

IX. Requests

The appellant (patentee) requested that the decision under appeal be set aside, that the claims 1 to 14 submitted as main request at the oral proceedings on 9 June 2005 be considered as fulfilling the requirements of Article 123(2) EPC and that the case be remitted to the Opposition Division for consideration of the other opposition grounds.

The respondents (opponents) requested that the appeal be dismissed.

Reasons for the Decision

Admissibility of the new main request into the proceedings - Article 114(2) EPC

1. A patent proprietor is supposed to submit new claim requests at the outset of appeal proceedings. This ensures that proceedings can be conducted efficiently and that the other parties are not taken by surprise by a fresh case which they cannot properly deal with. Requests filed at later stages of the proceedings may be admitted, however, the more complex the issues raised by the amendments are and the later in the proceedings they are filed, the greater is the risk that those requests are not admitted.

2. In the present case an amended main request was filed by the appellant one month before the oral proceedings. It must thus be regarded as filed late. The amendments are intended to remove the reason for refusal before the Opposition Division, a disclaimer. No attempt was made by the respondent to challenge the admissibility of this request. A final decision on this issue was not necessary because at the beginning of the oral proceedings - at an even later stage of the proceedings - a new main request was filed by the appellant. The wording of the claims of this request does not differ to a great extent from the wording of the previous main request. The appellant submitted that the amendments were mainly made to prevent further objections by the respondent. The respondent indeed said at the oral proceedings that due to some of the amendments parts of his pleading became obsolete. Thus, the amendments expedited the proceedings. Moreover, as can be seen from the observations below, none of the amendments gives rise to further objections. Hence, the board decides to admit main request into the proceedings.

Abandonment of subject-matter at grant

3. The respondent argues that in claim 1 the insertion of the term "detection" between "non-radioactive" and "moiety" is not allowable because the deliberately chosen deletion of the term "detection" from granted claim 1 and the description would bar the appellant from re-introducing this term in proceedings after grant and thereby from reinstating subject-matter which he had surrendered.

4. It is noted that there is no provision in the European Patent Convention precluding the introduction in a patent of terms which are present in the application documents as originally filed, but not in the patent. Article 123(2) EPC stipulates that "a European patent application or **a European patent** may not be amended in such a way that it contains subject-matter which extends beyond **the content of the application as filed.**" (emphasis added). Thus, the reservoir from which a patent proprietor can scoop for amendments in a patent is the patent application as originally filed and not the patent specification.

Scope of protection - Article 123(3) EPC

5. In the context of the argumentation on abandoned subject-matter the respondent submits that by re-introduction of the term "detection" in claim 1 of the main request subject-matter having been omitted in granted claim 1 is now re-introduced with the consequence that the subject-matter of this claim is broader than the subject-matter of granted claim 1, amounting to a violation of the requirement of Article 123(3) EPC.
6. However, there is no broadening. Firstly, in the board's view, the explicit mentioning of the term "detection" does not change the subject-matter of the claim at all. Rather, this feature is considered to have been implicitly present in granted claim 1, by way of interpretation in the light of the description and drawings disclosing nothing else than the use of the claimed compounds for detection in hybridization assays.

7. Secondly, if granted claim 1 is read in isolation, the expression "non-radioactive moiety" may be regarded as extending to all sorts of non-radioactive moieties, i.e. even to those not suited for "detection". However, since claim 1 of the present main request is expressly restricted to "non-radioactive **detection** moieties", its subject-matter is narrower and not broader compared to claim 1 as granted.

8. Hence it is concluded that the respondent's argument against the introduction of the term "detection" fails, firstly, because there is no legal basis for not allowing the re-introduction of terms not present in the claims as granted, but in the application documents as originally filed, and secondly, because, in the present case, by the inclusion of the term "detection" in the claims, the requirements of Article 123(3) EPC are not contravened.

9. In comparison to claim 1 as granted, claim 1 of the main request is moreover limited to one specific, indirectly attached non-radioactive detection moiety. Independent claim 8 has been restricted in the same manner as claim 1. Independent claim 13 is restricted to biotin-11-dUMP as non-radioactive detection moiety and avidin or streptavidin as preformed detectable molecular complex. Hence the overall scope of protection is not extended by the amendments. The requirements of Article 123(3) EPC are fulfilled.

Amendments - Article 123(2) EPC

10. Claim 1 of the present main request differs from claim 1 of the main request before the Opposition Division, i.e. claim 1 as granted, by the following amendments possibly relevant to Article 123(2) EPC:

(i) insertion of the term "detection" between "non-radioactive" and "moiety" and (ii) limitation of the indirectly attached non-radioactive detection moieties to biotin-11-dUMP.

11. Basis for the amendment mentioned in item (i) above are the complete application documents as originally filed which relate exclusively to the use of the claimed compounds as detection probes in nucleic acid hybridization assays. The specific wording of the claim is found on page 4: "...the present invention provides a novel compound comprising an oligo- or polynucleotide having at least one biotin **or other non-radioactive detection moiety directly** or indirectly **attached to each of the 5' and 3' end nucleotides ...**" (emphasis added).

12. The amendment mentioned in item (ii) is based on a combination of the wording of claims 1, 4 and 5 as originally filed (see section II above).

13. The respondent's argument that a combination of claims 1, 4 and 5 cannot be regarded as providing an **unambiguous** basis for the amendment because a selection has to be made from several alternatives covered by these claims is not convincing because each of the alternatives, among them the one now claimed, is

clearly derivable from the combination of the three claims.

Since claims 1, 4 and 5 in combination provide a basis for the amendment, the relevance of the absence of a worked example need not be discussed in detail.

14. The following further amendments were introduced in claims other than claim 1 and have the following basis in the application documents as originally filed.

The expression in claims 3 and 5 "two to five of biotin or biotin analogues are attached" is supported by a combination of claims 1 and 2.

The amendment in Claim 10 is supported by claim 9 as filed.

The expression in claim 11 "...wherein the detectable molecule is selected from a fluorochrome, chromogen or enzyme." has a basis in claim 9 as filed.

Claim 13 is based on claims 1, 4, 5 and 9 as filed.

In claims 1, 8 and 13 the expression "or biotin-11-allylamine-dUMP" is deleted. This amendment is allowed pursuant to Rule 88 EPC because, as submitted by the appellant during oral proceedings, the term remaining in the claim "biotin-11-dUMP" and the deleted term "biotin-11-allylamine-dUMP" are synonymous.

15. Consequently, all amendments are in agreement with the requirements of Article 123(2) EPC.

16. The decision to revoke the contested patent was solely based on Article 123(2) EPC. As the Opposition Division did not decide on the other grounds of opposition, the board decides pursuant to Article 111 EPC to remit the case to the Opposition Division for further prosecution on the basis of claims 1 to 14 of the Main Request.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance for further prosecution.

Registrar:

Chair:

P. Cremona

U. Kinkeldey