

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CN2017/090902

## A. CLASSIFICATION OF SUBJECT MATTER

C08B 37/10 (2006.01) i; C12Q 1/00 (2006.01) i

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)

C08B; C12Q

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)

Database: DWPI, SIPOABS, CNABS, CNKI, ISI Web of knowledge, NCBI, Google Scholar; Key Words: 肝素, 达肝素钠, 达特安瑞, 紫外, 过氧化氢, 硼氢化钠, 木瓜蛋白酶, 核糖核酸酶, 冰醋酸, 超滤, heparin, dalteparin, ultraviolet, UV, hydrogen peroxide, H2O2, sodium borohydride, NaBH4, papain, ribonuclease, acetic, ultrafiltration

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CN 103232558 A (SHANDONG CHENZHONG BIOPHARMACEUTICAL CO., LTD.) 07 August 2013 (07.08.2013), description, paragraphs [0006]-[0030]	1-18
A	CN 104072639 A (NANJING KING-FRIEND BIOCHEMICAL PHARMACEUTICAL CO., LTD.) 01 October 2014 (01.10.2014), entire document	1-18
A	CN 104163878 A (NANJING KING-FRIEND BIOCHEMICAL PHARMACEUTICAL CO., LTD.) 26 November 2014 (26.11.2014), entire document	1-18

Further documents are listed in the continuation of Box C.       See patent family annex.

<p>* Special categories of cited documents:</p> <p>“A” document defining the general state of the art which is not considered to be of particular relevance</p> <p>“E” earlier application or patent but published on or after the international filing date</p> <p>“L” document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>“O” document referring to an oral disclosure, use, exhibition or other means</p> <p>“P” document published prior to the international filing date but later than the priority date claimed</p>	<p>“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>“X” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>“&amp;” document member of the same patent family</p>
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<p>Date of the actual completion of the international search</p> <p style="text-align: center;">14 November 2017</p>	<p>Date of mailing of the international search report</p> <p style="text-align: center;">30 March 2018</p>
<p>Name and mailing address of the ISA</p> <p>State Intellectual Property Office of the P. R. China</p> <p>No. 6, Xitucheng Road, Jimenqiao</p> <p>Haidian District, Beijing 100088, China</p> <p>Facsimile No. (86-10) 62019451</p>	<p>Authorized officer</p> <p style="text-align: center;">LI, Lan</p> <p>Telephone No. (86-10) 62411619</p>

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

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Patent Documents referred in the Report	Publication Date	Patent Family	Publication Date
CN 103232558 A	07 August 2013	CN 103232558 B	22 April 2015
CN 104072639 A	01 October 2014	CN 104072639 B	22 April 2015
CN 104163878 A	26 November 2014	CN 104163878 B	21 September 2016