



22397-Review

Quotes Excluded
Bibliography Excluded1%
SIMILARName of Journal: *World Journal of Methodology*

ESPS Manuscript NO: 22397

Manuscript Type: Editorial

CE-HPLC for variant hemoglobins and HbF/A2: What must hematopathologists know about methodology?

Prashant Sharma, Reena Das

1
Abstract

Cation-exchange high-performance liquid chromatography (CE-HPLC) is a widely used laboratory test to detect variant hemoglobins as well as quantify hemoglobins F and A2 for the diagnosis of thalassemia syndromes. Its versatility, speed, reproducibility and convenience have made CE-HPLC the method of choice to initially screen for hemoglobin disorders. Despite its popularity, several methodological aspects of the technology remain obscure to pathologists and this may have consequences in specific situations. This paper discusses the basic principles of the technique, the initial quality control steps and the interpretation of various controls and variables that are available on the instrument output. Subsequent sections are devoted to methodological considerations that arise during reporting of cases. For instance, common problems of misidentified peaks, totals crossing 100%, causes of total area being above or below acceptable limits and the importance of pre-integration region peaks are dealt with

Match Overview



- | | | |
|---|--|----|
| 1 | CrossCheck 10 words
Gupta, Aastha, Amrita Saraf, Jasmita Dass, Meenal Mehta, Nita Radhakrishnan, Renu Saxena, and Manorama Bhargava. " | 1% |
| 2 | Internet 9 words
crawled on 07-Mar-2014
www.ncbi.nlm.nih.gov | 1% |

[Web](#)[Images](#)[Shopping](#)[More ▾](#)[Tools](#)[SafeSearch ▾](#)

5 results

Web Results[\[PDF\] Comparison of Sebia Capillarys Capillary Electrop...](#)[ajcp.ascpjournals.org/content/130/5/824.full.pdf](#) - Similar

5.7% by CE; mean, 96.8% and SD, 5.5% by HPLC), ... with that of the Primus Resolution HPLC method (Primus, ... evaluated the effect of the most common **hemoglobin variants** ... **Hematopathology** / original article ... **A2** peak. HbA. 1.795 . 2.060. 2.345. 2.653. Z15. Z14Z13. Z12. HbF. HbA **must** be measured together.

[\[PDF\] The Range of Hemoglobin A in Hemoglobin E Heteroz...](#)[ajcp.ascpjournals.org/content/132/1/34.full.pdf](#) - Similar

Hematopathology / **Hemoglobin A2 in Hemoglobin e Heterozygotes** ... measurement of HbA2 and HbF in a range of **hemoglobin** ... the detection of **hemoglobin variants**. 33-36 CE has been dem- ... **HPLC method** (Primus, Kansas City, MO) as described the α -globin produced **should** favor the binding of the normal.

[\[More results from ajcp.ascpjournals.org \]](#)[\[PDF\] Interference of Hemoglobin Hope on \$\beta\$ -Thalassemia ...](#)[ajcp.ascpjournals.org/content/136/1/14.full.pdf](#) - Similar

Diagnosis by the Capillary Electrophoresis **Method**. Sitthichai ... Abstract. The β -chain **hemoglobin (Hb) variants** interfere ... HbA2 by HPLC and CE is precise, there are some limitations. The falsely ... **Hematopathology** / Original Article 0. 10. 20. 0. 1. 2. HbF 1.5%. Hb Hope 49.7%. HbA 42.5%. Hb **A2** 3.4%. F. **A2**. 3. 4. 5 . 6.

[Hemoglobin Information and Courses from MediaLab, Inc.](#)[https://www.medialabinc.net/hemoglobin-keyword.aspx](#) - Similar

HbF is still present as it was on the original electrophoresis, but it is blended into the ... **Hemoglobin S** lies between **hemoglobin A2** and **Hemoglobin F**. **Hemoglobin** ... Relative migrations of **hemoglobin variants** on alkaline electrophoresis can be ... Lymphocytes can be found scattered throughout the bone marrow and **must**

[全部](#)[图片](#)[新闻](#)[视频](#)[更多 ▾](#)[搜索工具](#)

找到约 446 条结果 (用时 0.74 秒)

Detection of Abnormal Hemoglobin Variants by HPLC Method

www.hindawi.com/journals/isrn/2014/257805/ ▾ [翻译此页](#)

作者: L Pant - 2014 - [相关文章](#)

2014年10月12日 - Cation exchange high performance liquid chromatography (CE-HPLC) has ... HbA2, HbF, and other haemoglobin variants were studied by HPLC method used for ... Each chromatogram shows peaks of Hb A0, A2, and Hb F along with C window, These cases should be investigated for presence of alpha ...

A Review of Variant Hemoglobins Interfering with ...

www.ncbi.nlm.nih.gov > ... > PubMed Central (PMC) ▾ [翻译此页](#)

作者: RR Little - 2009 - 被引用次数: 125 - [相关文章](#)

Laboratorians should be aware of the limitations of their method with respect to these interferences. Keywords: diabetes, HbA1c, hemoglobin variants, interference ... Fetal hemoglobin (HbF), which is the predominant species present at birth, consists ... ion-exchange HPLC separates Hb species based on charge differences ...

[PDF] Analysis of Hemoglobins and Globin Chains by High ...

www.springer.com/cda/content/.../9780896039629-c2.pdf?... ▾ [翻译此页](#)

82: Hemoglobin Disorders: Molecular Methods and Protocols. Edited by: ... In recent years, high-performance liquid chromatography (HPLC) has become a ... analysis of the various Hb fractions by ion-exchange HPLC, which is now done in ... or, at least, should

[全部](#)[图片](#)[新闻](#)[视频](#)[更多 ▾](#)[搜索工具](#)

找到约 469 条结果 (用时 0.60 秒)

A Review of Variant Hemoglobins Interfering with ...

www.ncbi.nlm.nih.gov > ... > [PubMed Central \(PMC\)](#) ▾ [翻译此页](#)

作者: RR Little - 2009 - 被引用次数: 133 - [相关文章](#)

Laboratorians **should** be aware of the limitations of their **method** with respect to these interferences. Keywords: diabetes, HbA1c, **hemoglobin variants**, interference ... Fetal **hemoglobin** (HbF), which is the predominant species present at birth, consists ... **ion-exchange HPLC** separates Hb species based on charge differences ...

[PDF] Cation Exchange High Performance Liquid ... - medIND

medind.nic.in/maa/t09/i1/maat09i1p33.pdf ▾ [翻译此页](#)

作者: LCPK Gupta - 被引用次数: 7 - [相关文章](#)

2007年12月6日 - HbA2, **HbF** and any other abnormal Hb **variant**. The ... uses **cation exchange HPLC** to separate and elucidate the relative percentages of **haemoglobin variants** in ... **liquid chromatography** (HPLC) is emerging as the **method** of choice for initial ... disease or HbE – beta thalassaemia (HbE/A2 levels > HbA) or.

[PDF] Analysis of Hemoglobins and Globin Chains by High ...

www.springer.com/cda/content/.../9780896039629-c2.pdf?... ▾ [翻译此页](#)

Introduction. In recent years, **high-performance liquid chromatography** (HPLC) has ... analysis of the various Hb fractions by **ion-exchange HPLC**, which is now done in ... suring of the levels of HbA2, **HbF**, and several abnormal Hbs. According ... or, at least, **should** be an additional tool for the identification of Hb **variants**. (8).

Get PDF (485K) - Wiley Online Library

onlinelibrary.wiley.com/doi/10.1111/j.1751-553X.2008.../pdf - [翻译此页](#)

2008年4月28日 - interpretation by a **hematopathologist**. **HbF** to detect fetal cells provides a means to quantitate the degree of ... amount of information but the key information **should** be high ... performance evaluation of Ig enumeration **methods**.