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*Observational Study*

Mechanism of exosomal microRNA-224 in the development of hepatocellular carcinoma and an evaluation of its diagnostic value

Cui Y *et al.* Role of exosomal miR-224 in HCC

Yao Cui, Hai-Feng Xu, Ming-Yue Liu, Yu-Jie Xu, Jun-Chuang He, Yun Zhou, Shun-Dong Cang

**Abstract**

**BACKGROUND**

Exosomes contain proteins, lipids, and biological molecules such as DNA and RNA. Nucleic acids in exosomes are another molecule that can act as a biomarker. Currently, there are many reports on exosomal microRNA, which is an ideal biomarker for the early diagnosis of cancer. However, there are few reports on the role of exosomal microRNAs in the diagnosis and prognosis of hepatocellular carcinoma (HCC).

**AIM**

To understand the mechanism of exosomal microRNA-224 (miR-224) in the development of HCC and evaluate its diagnostic and prognostic value.

Match Overview

1	<b>Crossref</b> 48 words Guanghui Zhu, Lianming Zhou, Haijun Liu, Yuanzhou Shan , Xueli Zhang. "MicroRNA-224 Promotes Pancreatic Canc	2%
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## Google 学术: Mechanism of exosome miR-224 in the development of hepatocellular carcinoma and the diagnostic value evaluation

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... markers for detecting hepatocellular carcinoma: a ... - Liu - 被引用次数: 210

... as novel biomarkers for hepatocellular carcinoma - Sohn - 被引用次数: 133

## Role of exosomes and exosomal microRNAs in hepatocellular ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5810235/> - 翻译此页

作者: JH Pan - 2018 - 被引用次数: 4 - 相关文章

2018年1月11日 - In addition, the mechanism of HCC-derived exosome-mediated ... value in the early diagnosis and treatment of HCC, are summarized. .... 4. Role of exosomes in the occurrence and development of HCC ... Sohn et al, 2015, Korea, Serum, miR-18a, miR-221, miR-222, miR-224, miR101, miR-106b, miR-122, ...

## (PDF) Exosomal miRNAs in hepatocellular carcinoma development ...

[https://www.researchgate.net/.../324459167\\_Exosomal\\_miRNAs\\_in\\_hepatoc...](https://www.researchgate.net/.../324459167_Exosomal_miRNAs_in_hepatoc...) - 翻译此页

2018年8月1日 - Exosomal miRNAs act through novel mechanisms for inducing cellular ... Clinical significance of exosomal miRNAs in HCC ... ... focused on using exosomal miRNAs in clinical diagnostics and therapeutics, .... miR-222, miR-224 ..... The effects of MSCs-exo on Th17, Th1, and Treg were evaluated by flow ...

## (PDF) Serum exosomal microRNAs combined with alpha-fetoprotein ...

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Exosomal microRNAs have recently been studied as the potential diagnostic marker for ... curve was used to evaluate the diagnostic performance of candidate microRNAs. ... miR-122 was the best for differentiating HCC from NC (AUC: 0.990, 95% CI, 0.945–1.000). .... to those in their cells of origin, suggesting their value as.

## Serum exosomal microRNAs as novel biomarkers for hepatocellular ...

<https://www.nature.com/.../original/article> - 翻译此页

作者: W. Q. Li, ... 2015 - 被引用次数: 133 - 相关文章



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## Expression of serum miR-221 in human hepatocellular carcinoma and

...

[https://www.researchgate.net/.../49811875\\_Expression\\_of\\_serum\\_miR-221\\_...](https://www.researchgate.net/.../49811875_Expression_of_serum_miR-221_...) - 翻译此页2018年10月10日 - Serum **miRNA** expression was investigated in 46 **HCC** patients and 20 healthy ...

Some **miRNAs** such as miR-1, miR-21, miR-195, miR-**224** and miR-221 ... Meanwhile, miR-221 could promote tumor **development** by inhibiting ..... B from **liver cancer** [21] and despite **its** lower **diagnostic value** compared with ...

## Early diagnostic evaluation of miR-122 and miR-224 as biomarkers for

...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6150115/> - 翻译此页

作者: KS Amr - 2017 - 被引用次数: 5 - 相关文章

2017年12月6日 - Herein, we aimed to identify the predictive **value** of two **miRNAs** ... Moreover, it was found that miR-122 can predict **development of HCC** at cut-off **value** ... Keywords: **Diagnosis**, **Hepatocellular carcinoma**, miR-122, miR-**224**, Sensitivity ... **its** expression is commonly down or lost in **HCC** cells contributing to ...

缺少字词: **exosomal**

## Role of exosomes and exosomal microRNAs in hepatocellular ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5810235/> - 翻译此页

作者: JH Pan - 2018 - 被引用次数: 6 - 相关文章

2018年1月11日 - Despite advances in prevention, screening, and novel **diagnostic** and ... Determining the molecular **mechanisms** of the proliferation and metastasis of **liver cancer**, and ... 4. Role of **exosomes** in the occurrence and **development of HCC** ..... the size of the sample and the **appraisal** method of the **miRNAs**.

## The utility of serum exosomal microRNAs in hepatocellular carcinoma

...

<https://www.sciencedirect.com/science/article/pii/S0753332218353691> - 翻译此页

作者: L Jun - 2019 - 相关文章

Circulating **exosomal microRNAs**. **Hepatocellular carcinoma**. **Diagnosis** ... With the **development** of

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### Early diagnostic evaluation of miR-122 and miR-224 as biomarkers for ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6150115/> - 翻译此页

作者: KS Amr - 2017 - 被引用次数: 5 - 相关文章

2017年12月6日 - Herein, we aimed to identify the predictive value of two miRNAs (miR-122 ...

Keywords: Diagnosis, Hepatocellular carcinoma, miR-122, miR-224, Sensitivity ... leading etiological factor for the developing HCC,2 especially in Egypt.3 ... and its expression is commonly down or lost in HCC cells contributing to ...

缺少字词: exosomal

### The Role of Circulating Free DNA and MicroRNA in Non-Invasive ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5979406/> - 翻译此页

作者: F Pezzuto - 2018 - 被引用次数: 6 - 相关文章

2018年3月28日 - The major risk factors for the development of HCC are hepatitis B (HBV) and ... as free molecules or entrapped in vesicles such as exosomes [12,13,14]. ... is aberrantly methylated in HCC and could have a diagnostic value of AFP ... TGR5 acts as tumour suppressor gene, in fact its activation greatly inhibits ...

### Roles of microRNA in liver cancer - ScienceDirect

<https://www.sciencedirect.com/science/article/pii/S2542568417300284> - 翻译此页

作者: J Tao - 2018 - 相关文章

However, the molecular genetics underlying liver cancer development remain poorly understood. .... The molecular mechanism is hepatocyte nuclear factor 4  $\alpha$  (HNF4 $\alpha$ ) and its .... Zhang et al. found significant upregulation of miR-224 in HCC tissues .... Further studies of miRNAs in liver cancer for diagnosis and therapy.

### (PDF) Serum exosomal microRNAs combined with alpha-fetoprotein ...

[https://www.researchgate.net/.../323988016\\_Serum\\_exosomal\\_microRNAs\\_...](https://www.researchgate.net/.../323988016_Serum_exosomal_microRNAs_...) - 翻译此页

2018年8月1日 - Lane 1, 2, and 3: the serum exosome fractions from HCC patient 1, 2, and the exosome-free serum of HCC .... acteristic curve was used to evaluate the diagnostic performance of candidate ... genesis and development, and targeted delivery of drugs ... to those in their cells of origin, suggesting their value as