



US006120761A

# United States Patent [19]

Yamazaki et al.

[11] Patent Number: **6,120,761**

[45] Date of Patent: **Sep. 19, 2000**

[54] **ERYTHROPOIETIN SOLUTION PREPARATION**

[75] Inventors: **Tadao Yamazaki; Toshiari Morita; Hiroshi Nagai**, all of Tokyo, Japan

[73] Assignee: **Chugai Seiyaku Kabushiki Kaisha**, Tokyo, Japan

[21] Appl. No.: **09/171,737**

[22] PCT Filed: **Apr. 25, 1997**

[86] PCT No.: **PCT/JP97/01449**

§ 371 Date: **Dec. 16, 1998**

§ 102(e) Date: **Dec. 16, 1998**

[87] PCT Pub. No.: **WO97/40850**

PCT Pub. Date: **Nov. 6, 1997**

[30] **Foreign Application Priority Data**

Apr. 26, 1996	[JP]	Japan	8-131226
Oct. 30, 1996	[JP]	Japan	8-303956

[51] **Int. Cl.<sup>7</sup>** ..... **A61K 38/19; A61K 38/22**

[52] **U.S. Cl.** ..... **424/85.1; 514/21**

[58] **Field of Search** ..... **530/350, 351, 530/397; 514/8, 12, 21; 424/85.1**

[56] **References Cited**

**U.S. PATENT DOCUMENTS**

4,877,608	10/1989	Lee et al.	424/85.8
4,992,419	2/1991	Woog et al.	514/8
5,580,856	12/1996	Prestrelski et al.	514/21
5,691,312	11/1997	Paques	514/12

**FOREIGN PATENT DOCUMENTS**

61-97229	5/1986	Japan	.
63-146829	6/1986	Japan	.
62-123130	6/1987	Japan	.
64-42442	2/1989	Japan	.
64-71818	3/1989	Japan	.
3-044333	2/1991	Japan	.
3-170437	7/1991	Japan	.
4-108737	4/1992	Japan	.
93/03744	3/1993	WIPO	.
96/17593	6/1996	WIPO	.
96/28143	9/1996	WIPO	.

*Primary Examiner*—Jeffrey E. Russel  
*Attorney, Agent, or Firm*—Morgan & Finnegan, L.L.P.

[57] **ABSTRACT**

This invention provides an erythropoietin solution preparation containing an amino acid as a stabilizer, and having excellent long-term storage stability.

**11 Claims, 4 Drawing Sheets**

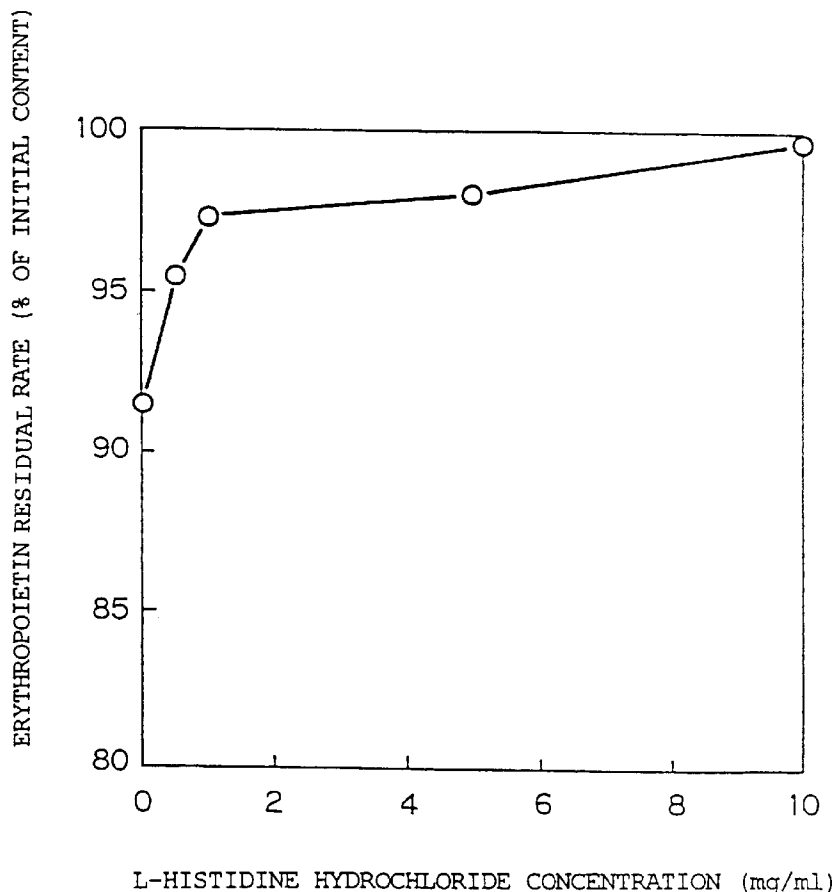


Fig. 1

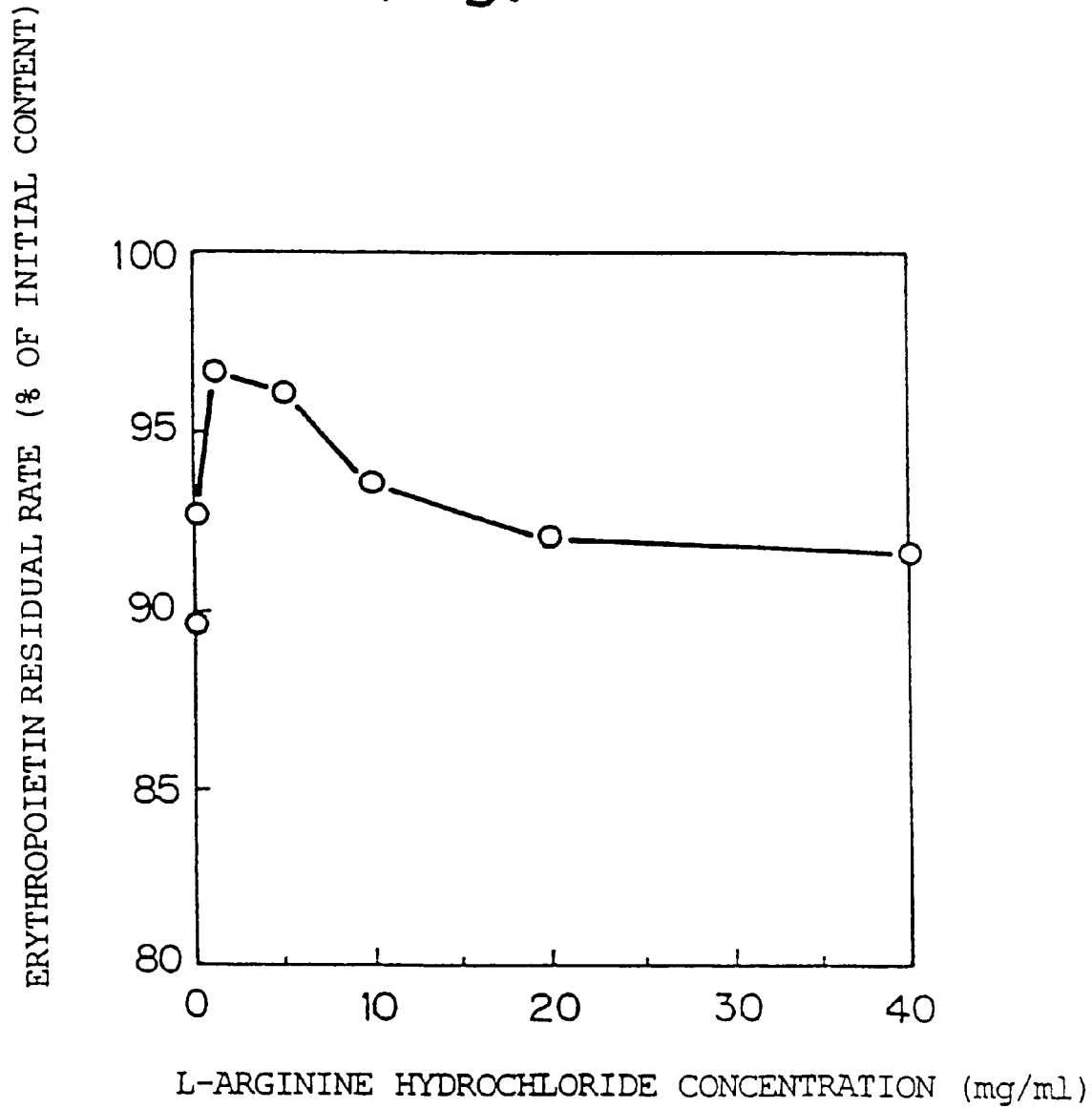


Fig. 2

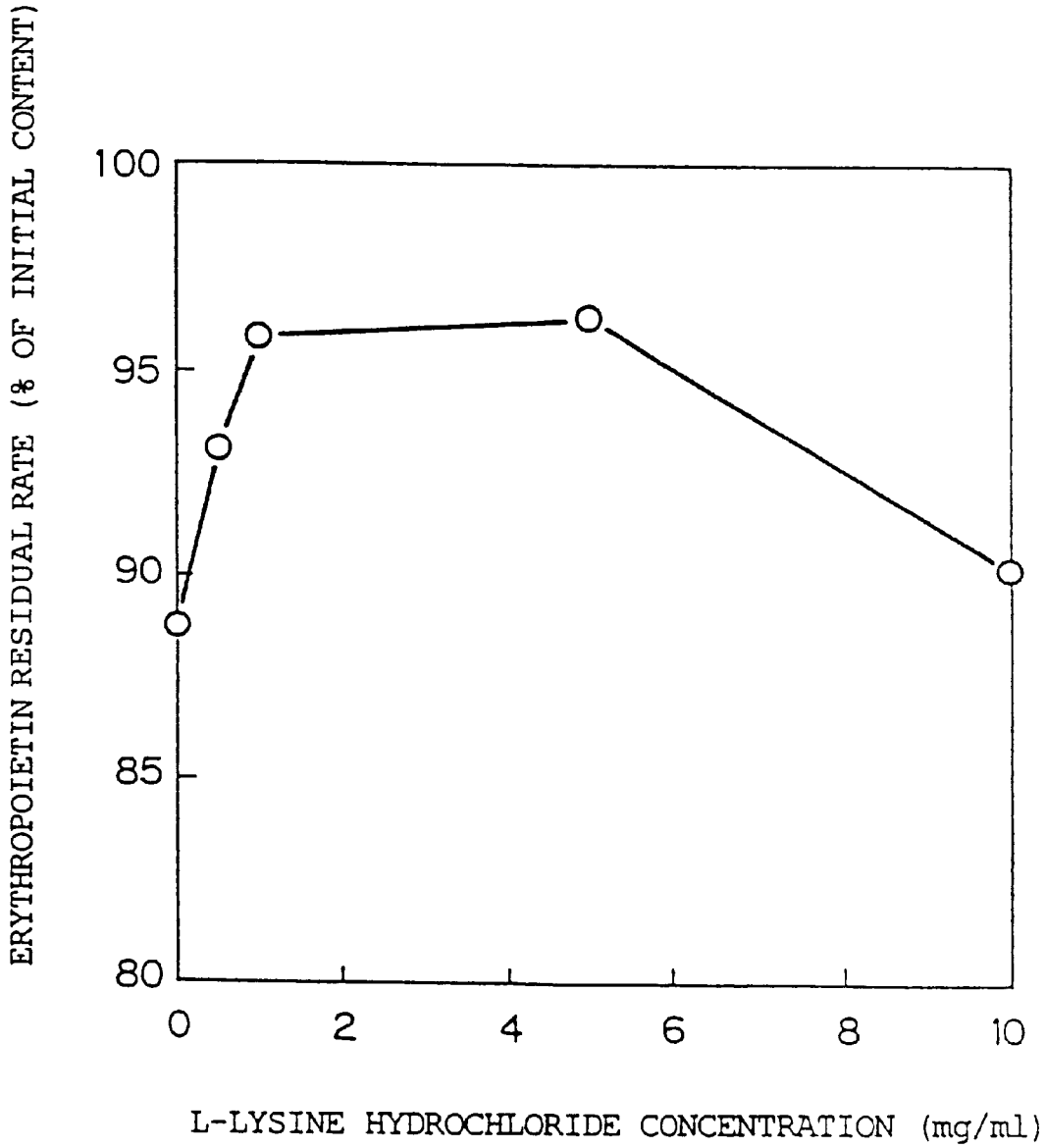
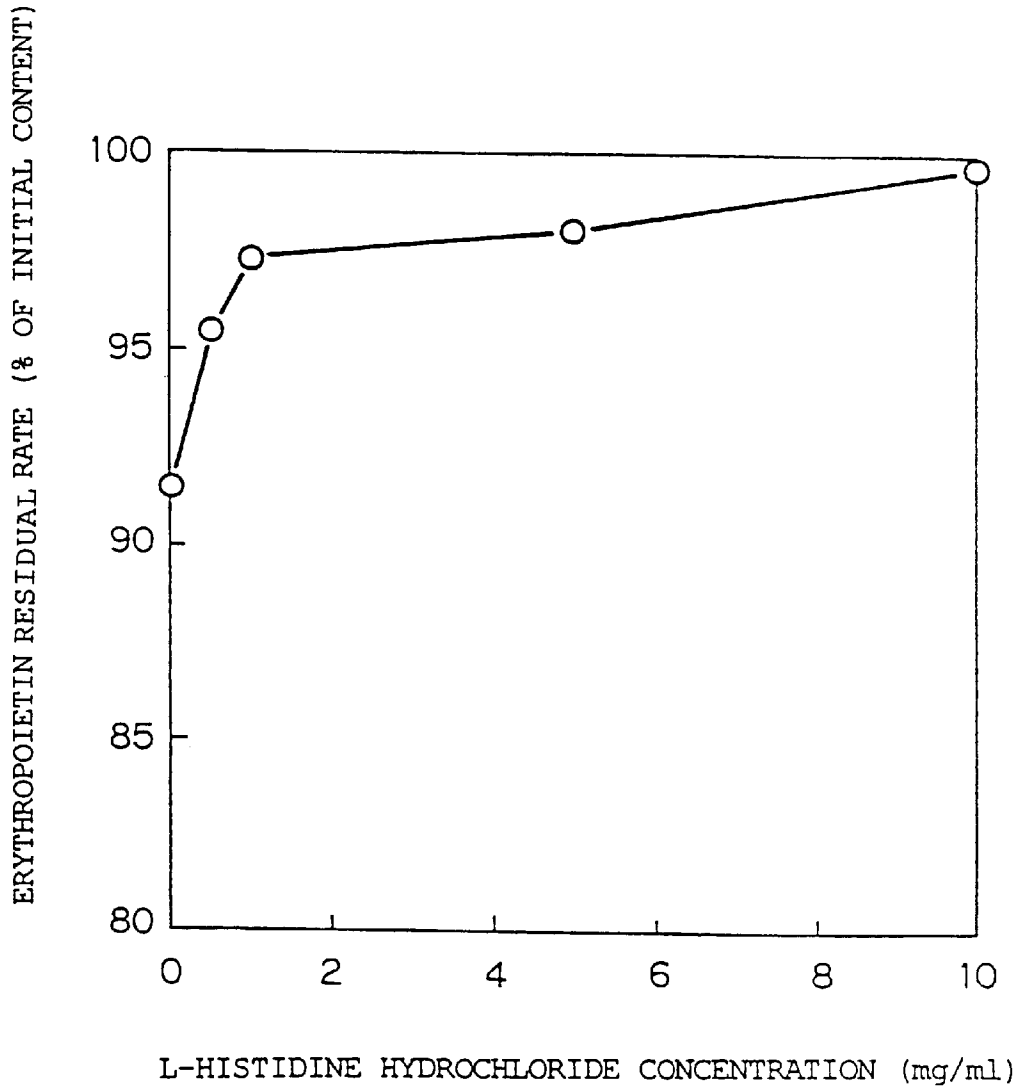
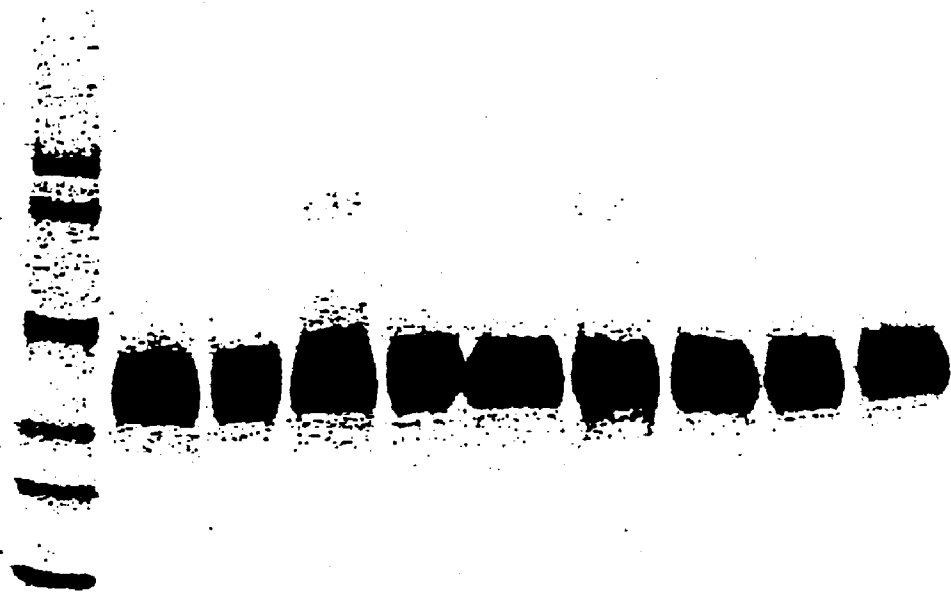


Fig. 3



*Fig. 4*



1 2 3 4 5 6 7 8 9 10

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.