

ESTTA Tracking number: **ESTTA684536**

Filing date: **07/20/2015**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

Petition for Cancellation

Notice is hereby given that the following party requests to cancel indicated registration.

Petitioner Information

Name	Proove Biosciences, Inc.		
Entity	Corporation	Citizenship	Delaware
Address	10820 Guilford Road Suite 201 Annapolis Junction, MD 20701 UNITED STATES		

Attorney information	Patrick R. Delaney Ditthavong & Steiner, P.C. 44 Canal Center Plaza Suite 322 Alexandria, VA 22314 UNITED STATES docket@dcpatent.com, pdelaney@dcpatent.com, patrickrdelaney@gmail.com Phone:703.519.9951
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Registration Subject to Cancellation

Registration No	3250168	Registration date	06/12/2007
International Registration No.	NONE	International Registration Date	NONE
Registrant	ProlImmune Limited Magdalen Centre Oxford, OX4 4GA, UNITED KINGDOM		

Goods/Services Subject to Cancellation

Class 001. First Use: 0 First Use In Commerce: 0 All goods and services in the class are cancelled, namely: Human and animal diagnostic preparations for scientific research purposes and biochemical substances for scientific research purposes
Class 005. First Use: 0 First Use In Commerce: 0 All goods and services in the class are cancelled, namely: Pharmaceutical and veterinary preparations for the treatment of cancer, infectious diseases, autoimmune diseases and transplant complication prevention
Class 042. First Use: 0 First Use In Commerce: 0 All goods and services in the class are cancelled, namely: Scientific and technical research and design services in the field of biomedical sciences

Grounds for Cancellation

<i>Torres v. Cantine Torresella S.r.l.Fraud</i>	808 F.2d 46, 1 USPQ2d 1483 (Fed. Cir. 1986)
Genericness	Trademark Act section 23
Abandonment	Trademark Act section 14

Related Proceed-	TTAB Ex Parte Appeal re application serial no. 86/085,516
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Attachments	Petition for Cancellation.pdf(170194 bytes) Exhibit A.pdf(90474 bytes) Exhibit B.pdf(1094830 bytes) Exhibit C.pdf(989152 bytes)
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Certificate of Service

The undersigned hereby certifies that a copy of this paper has been served upon all parties, at their address record by First Class Mail on this date.

Signature	/Patrick R. Delaney/
Name	Patrick R. Delaney
Date	07/20/2015

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD**

In the matter of trademark Registration No. 3,250,168
For the mark: PROVE
Date registered: June 12, 2007

)	
)	
PROOVE BIOSCIENCES, INC.,)	
)	Cancellation No. _____
Petitioner,)	
)	
v.)	<u>PETITION FOR CANCELLATION</u>
)	
PROIMMUNE LIMITED,)	
)	
Registrant.)	
)	

Petitioner, PROOVE BIOSCIENCES, INC., brings this petition for trademark registration cancellation against Registrant, PROIMMUNE LIMITED, and alleges on knowledge, information and belief, as follows:

PARTIES & STANDING

1. Petitioner, Proove Biosciences Inc., (hereinafter the “Petitioner”), is a corporation having an address at 10820 Guilford Road, Suite 201, Annapolis Junction, Maryland 20701, USA.

2. Registrant, ProImmune Limited (hereinafter the “Registrant”), a corporation having an address at Magdalen Centre, Oxford Science Park, Oxford, OX4 4GA, UK, is the owner of U.S. Registration No. 3,250,168 for the word mark PROVE (hereinafter the “Registration”).

3. Petitioner is currently and will continue to be damaged by the Registration and

hereby petitions to cancel same.

4. Petitioner is the applicant in U.S. trademark application serial no. 86/085,516 for the word mark PROOVE. The Registration is the sole basis for the current refusal of Petitioner's application in U.S. trademark application serial no. 86/085,516. Attached as Exhibit A is copy of the June 15, 2015 Decision on Appeal in that application.

The grounds for cancellation of the Registration are as follows:

FIRST GROUNDS FOR CANCELLATION – GENERICNESS

5. The word “prove” is defined as “to show the existence, truth, or correctness of (something) by using evidence, logic, etc.” Attached as Exhibit B is a print-out from the Merriam-Webster online dictionary downloaded July 15, 2015 from the URL: <http://www.merriam-webster.com/dictionary/prove>.

6. The word “prove” is commonly known as the primary activity in the scientific method, including deductive and inductive reasoning utilized in scientific and technical research and design services in the field of biomedical sciences. The word “prove” is also commonly known as the primary activity in diagnostic methods, including those utilizing diagnostic preparations or biochemical substances for scientific research purposes.

7. Individuals who practice the scientific method or utilize diagnostic preparations commonly engage the scientific method to “prove” their results.

8. The term “prove” has been widely used for centuries by scientists and medical professionals to refer to the common practice of developing test results in order to “prove” or disprove a hypothesis.

9. Millions of companies, institutions and individuals throughout the United States

commonly engage in scientific research to “prove” their hypotheses as a basic function in their endeavors.

10. Registrant’s prior use of the term “prove” is not unique or distinctive, but rather consistent with other third party uses and common understanding of the term dating back decades.

11. Attached as Exhibit C is copy of the single specimen filed with the June 07, 2013 Combined Declaration allegedly demonstrating use in commerce by Registrant with respect to goods and services in both International Classes 005 and 042 in the Registration.

SECOND GROUNDS FOR CANCELLATION – ABANDONMENT

12. In a Combined Declaration of Use and Incontestability under Sections 8 and 15 filed on June 07, 2013, Registrant claimed the mark PROVE had been continuously used in commerce for five (5) consecutive years after the date of registration, or the date of publication under Section 12(c), and was still in use in commerce on or in connection in both International Classes 005 and 042 in the Registration.

13. The June 07, 2013 Combined Declaration, of record in the Registration’s file history, was filed with two copies of only a single specimen for the goods and services in both International Classes 005 and 042 in the Registration. Please see Exhibit C.

14. The specimen of Exhibit C does not support demonstrating any actual use in commerce associated with scientific and technical research and design services in the field of biomedical sciences in International Class 042.

15. Upon information and belief, Registrant is not currently offering scientific and technical research and design services in the field of biomedical sciences under the PROVE

trademark.

16. Upon information and belief, Registrant does not intend to offer scientific and technical research and design services in the field of biomedical sciences under the PROVE trademark.

17. Registrant operates a website (currently located at <https://www.proimmune.com/ecommerce/index.php>) that promotes the sale of select specific goods.

18. A review of Registrant's website on July 20, 2015, suggests that Registrant is not currently using the PROVE trademark for any goods or services. The PROVE mark previously associated with Registrant's goods in Exhibit C (i.e., Registrant's MHC Class I Pentamer diagnostic preparations), was replaced with the mark "PRO5" on or about July 20, 2015.

19. Registrant has abandoned the PROVE trademark with respect to scientific and technical research and design services in the field of biomedical sciences and appears to have abandoned the PROVE trademark with respect to diagnostic preparations.

THIRD GROUNDS FOR CANCELLATION – FRAUD

20. The Combined Declaration of Use and Incontestability under Sections 8 and 15 filed on June 07, 2013, included a sworn declaration signed under penalty of perjury by Mr. John C. Eisenhart, Registrant's Attorney.

21. Mr. Eisenhart swore that Registrant was, as of June 7, 2013, using the PROVE trademark "...in commerce on or in connection with all goods and/or services identified..." including those in International Class 042, and that the PROVE trademark "...has been in continuous use in commerce for five (5) consecutive years after the date of registration [June

12, 2007] ...” including with respect to those in International Class 042. Upon information and belief, such statements were false at the time that they were made.

22. In support of its June 07, 2013 Combined Declaration of Use and Incontestability, Registrant attached a specimen of use (Exhibit C) consisting of a webpage for Registrant’s “PROVE MHC Class I Pentamer Libraries”, a diagnostic preparation product associated with International Class 001 and not associated with technical research and design services in the field of biomedical sciences in International Class 042.

23. Upon information and belief, as of June 07, 2013, Registrant was not using PROVE trademark in commerce in association with scientific and technical research and design services in the field of biomedical sciences.

24. Upon information and belief, as of June 07, 2013, Registrant had not used the PROVE trademark in commerce in association with scientific and technical research and design services in the field of biomedical sciences for five consecutive years following the date of registration [June 12, 2007].

25. Upon information and belief, as of June 07, 2013, the webpage (Exhibit C) which Registrant submitted with its Combined Declaration of Use and Incontestability was not currently being used by Registrant to advertise scientific and technical research and design services in the field of biomedical sciences.

26. Upon information and belief, Registrant and Mr. Eisenhart knew that Mr. Eisenhart’s statements regarding use of the PROVE trademark in commerce in association with scientific and technical research and design services in the field of biomedical sciences were false at the time such statements were made.

27. Upon information and belief, Registrant knew that the specimen of use that Mr. Eisenhart submitted (Exhibit C) was not a current specimen showing Registrant's current use of the PROVE trademark in commerce in association with scientific and technical research and design services in the field of biomedical sciences at that time.

28. Upon information and belief, Registrant and Mr. Eisenhart filed the Combined Declaration of Use and Incontestability with the false statements and the false specimen (Exhibit C) with the intent to deceive the USPTO and the intent that the USPTO would rely upon the false statements and false specimen in allowing the continued registration of the PROVE mark. 24.

29. The U.S. Patent and Trademark Office (USPTO) relied upon Mr. Eisenhart's material false statements and false specimen in allowing the continued registration of the PROVE mark.

30. The USPTO would not have allowed Registration No. 3,250,168 to remain valid absent Registrant's knowingly false statements and false specimen.

PRAYER FOR RELIEF

WHEREFORE, Petitioner prays that Registration No. 3,250,168 be cancelled pursuant to 15 U.S.C. §§ 1064(3) because: (1) the word “prove” has become the generic name for the goods and services named in the Registration, (2) the PROVE trademark has been abandoned by the Registrant with respect to scientific and technical research and design services in the field of biomedical sciences, and (3) the Registration has been maintained via fraudulent representations to the USPTO.

DATED: July 20, 2015

Respectfully submitted,

DITTHAVONG & STEINER, P.C.

/s/ Patrick R. Delaney

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Attorney for Petitioner
PROOVE BIOSCIENCES, INC.

CERTIFICATE OF SERVICE

I certify that on July 20, 2015, the foregoing PETITION TO CANCEL is being deposited with the United States Postal Service, with sufficient postage, as first class mail in an envelope addressed to the Attorney of Record for the owner of the Registration:

John C. Eisenhart
NIXON & VANDERHYE, P.C.
901 N. Glebe Road, 11th Floor
Arlington, VA 22203

/s/ Patrick R. Delaney
Patrick R. Delaney

This Opinion is not a
Precedent of the TTAB

Mailed: June 15, 2015

UNITED STATES PATENT AND TRADEMARK OFFICE

—
Trademark Trial and Appeal Board
—

In re Proove Biosciences, Inc.
—

Serial No. 86085516
—

Patrick R. Delaney of Ditthavong & Steiner PC,
for Proove Biosciences, Inc.

Emily Chuo, Trademark Examining Attorney, Law Office 101,
Ronald R. Sussman, Managing Attorney.

—
Before Quinn, Bucher and Kuzma,
Administrative Trademark Judges.

Opinion by Bucher, Administrative Trademark Judge:

Proove Biosciences, Inc. (“Applicant”), a corporation based in Irvine, CA, seeks registration on the Principal Register of the mark **PROOVE** (*in standard character format*) for

“genetic tests comprised of DNA detection reagents to medical doctors, genetic scientists and healthcare professionals; assays or reagents in the nature of DNA detection chemicals and biologicals for use in genetic research to medical doctors, genetic scientists and healthcare professionals” in International Class 1;

“preparations in the nature of DNA detection chemicals and biologicals for detecting genetic predispositions for health treatment purposes to medical doctors, genetic scientists and healthcare professionals” in International Class 5; and

“consulting services in the fields of laboratory genetic testing or pharmacogenetics to medical doctors, genetic scientists and healthcare professionals; genetic testing for scientific and medical research purposes to medical doctors, genetic scientists and healthcare professionals; providing information in the field of pharmacogenetics or genetic research resources to medical doctors, genetic scientists and healthcare professionals; providing genetic testing services or information in the field of pharmacogenetics or genetic research for scientific research purposes to medical doctors, genetic scientists and healthcare professionals; research in the field of genetics or pharmacogenetics; services in the nature of providing genetic testing results for scientific research purposes to medical doctors, genetic scientists and healthcare professionals” in International Class 42.¹

The Trademark Examining Attorney has taken the position that Applicant’s mark, when used on or in connection with the goods and services of Applicant so resembles the registered mark **PROVE** (*in standard character format*) for goods and services in the same three classes, as follows:

“human and animal diagnostic preparations for scientific research purposes and biochemical substances for scientific research purposes” in International Class 1;

“pharmaceutical and veterinary preparations for the treatment of cancer, infectious diseases, autoimmune diseases and transplant complication prevention” in International Class 5; and

¹ Application Serial No. 86085516 was filed on October 8, 2013, based upon Applicant’s allegation of a *bona fide* intention to use the mark in commerce under Section 1(b) of the Trademark Act.

“scientific and technical research and design services in the field of biomedical sciences” in International Class 42;²

as to be likely to cause confusion, to cause mistake or to deceive under Section 2(d) of the Trademark Act, 15 U.S.C. § 1052(d).

After the Trademark Examining Attorney made the refusal final, Applicant appealed to this Board. We affirm the refusal to register.

Our determination under Trademark Act § 2(d) is based upon an analysis of the probative facts in evidence that are relevant to the factors bearing on a likelihood of confusion. *See In re E.I. du Pont de Nemours & Co.*, 476 F.2d 1357, 177 USPQ 563 (CCPA 1973); *see also Palm Bay Imp., Inc. v. Veuve Clicquot Ponsardin Maison Fondee En 1772*, 396 F.3d 1369, 73 USPQ2d 1689 (Fed. Cir. 2005); *In re Majestic Distilling Co., Inc.*, 315 F.3d 1311, 65 USPQ2d 1201 (Fed. Cir. 2003); and *In re Dixie Rests. Inc.*, 105 F.3d 1405, 41 USPQ2d 1531 (Fed. Cir. 1997). In considering the evidence of record on these factors, we keep in mind that “[t]he fundamental inquiry mandated by Section 2(d) goes to the cumulative effect of differences in the essential characteristics of the goods and differences in the marks.” *Federated Foods, Inc. v. Fort Howard Paper Co.*, 544 F.2d 1098, 192 USPQ 24, 29 (CCPA 1976); *see also In re Azteca Rest. Enters., Inc.*, 50 USPQ2d 1209 (TTAB 1999).

A. Comparison of the Marks

We begin by comparing the marks. We consider and compare the appearance, sound, connotation and commercial impression of the marks in their entirety.

² Registration No. 3250168 issued to ProImmune Limited, a U.K. corporation, on June 12, 2007; Section 8 affidavit accepted and Section 15 affidavit acknowledged.

Palm Bay Imports, 73 USPQ2d at 1691. “The proper test is not a side-by-side comparison of the marks, but instead ‘whether the marks are sufficiently similar in terms of their commercial impression’ such that persons who encounter the marks would be likely to assume a connection between the parties.” *Coach Servs., Inc. v. Triumph Learning LLC*, 668 F.3d 1356, 101 USPQ2d 1713, 1721 (Fed. Cir. 2012) (citation omitted). See *San Fernando Electric Mfg. Co. v. JFD Electronics Components Corp.*, 565 F.2d 683, 196 USPQ 1, 3 (CCPA 1977); *Spoons Restaurants Inc. v. Morrison Inc.*, 23 USPQ2d 1735, 1741 (TTAB 1991), *aff’d mem.*, 972 F.2d 1353 (Fed. Cir. June 5, 1992).

While the registered mark is **PROVE**, Applicant’s mark is **PROOVE**. Applicant argues that its second instance of the letter “O” renders its mark considerably different from Registrant’s mark as to appearance and overall commercial impression. By contrast, the Trademark Examining Attorney contends that the “marks are virtually identical,” and emphasizes the fact that we must assume these involved marks will be phonetically equivalent.

With these words differing by the adding of another letter “O,” we suspect that many consumers, particularly those challenged by bad orthography, will little notice nor long remember this difference. Accordingly, we find these marks to be quite similar as to appearance and identical as to sound. Acknowledging that for some customers, a minor difference in connotations may spring from perception of the known English language word, “Prove,” of the cited mark, on the one hand, and the misspelled “Proove” of Applicant’s mark, on the other hand, we nonetheless find the similarities herein outweigh

the dissimilarities, and these two marks will create quite similar overall commercial impressions. Hence, this key *du Pont* factor favors a finding of likelihood of confusion.

B. Relationship of the Goods and Services

We next turn our attention to an evaluation of the relationship of the goods and services in the cited registration to the goods and services named in the application. *Octocom Systems, Inc. v. Houston Computers Services Inc.*, 918 F.2d 937, 16 USPQ2d 1783, 1787 (Fed. Cir. 1990). *See also Hewlett-Packard Co. v. Packard Press Inc.*, 281 F.3d 1261, 62 USPQ2d 1001 (Fed. Cir. 2002). It is settled that it is not necessary that the respective goods and services be identical or even competitive in order to find that they are related for purposes of our likelihood of confusion analysis. That is, the issue is not whether customers would confuse the goods and services themselves, but rather whether they would be confused as to the source of the goods. *See In re Rexel Inc.*, 223 USPQ 830 (TTAB 1984). The goods and services need only be sufficiently related that customers would be likely to assume, upon encountering the goods and services under similar marks, that the goods and services originate from, are sponsored or authorized by, or are otherwise connected to the same source. *See In re Martin's Famous Pastry Shoppe, Inc.*, 748 F.2d 1565, 223 USPQ 1289 (Fed. Cir. 1984); *In re Melville Corp.*, 18 USPQ2d 1386 (TTAB 1991).

By their very terms, Registrant's biochemical goods in Class 1 are directed to scientific research purposes and its involved goods in Class 5 are for the treatment of

cancer, infectious diseases, autoimmune diseases and transplant complication prevention. Its research and design services are broadly available “in the field of biomedical sciences.” Moreover, Applicant has submitted for the record a copy of Registrant’s website.³ While it is impermissible for an applicant to restrict the scope of the cited registrant’s goods and services with extrinsic evidence, we have reviewed the information gleaned from this website to understand more about Registrant’s goods and services. Accordingly, we conclude that Registrant provides its products and services to medical researchers across the globe that work in the world’s leading pharmaceutical and biotechnology companies, as well as several thousand academic and healthcare institutions.

Repeatedly in its identification of goods and recitation of services, Appellant describes its offering of goods and services as intended for advanced scientific applications involving genetics for medical purposes, with these goods and services being provided to medical doctors, genetic scientists and healthcare professionals.

We agree with Applicant that it appears that these respective goods are not directly competitive. We accept for the sake of argument that Applicant’s reagents are different in purpose and nature from Registrant’s preparations. However, whether in connection with researcher’s development of new medicines or the physician’s initiation of drug therapies in treating a patient, the current trend is toward individualizing drug therapies. That is the purpose, by definition, of Applicant’s goods and services in the field of pharmacogenetics. Similarly,

³ <http://www.proimmune.com/ecommerce/page.php?page=clients>

Registrant's webpage discusses its products used to detect epitope-specific immune cells so that they can be analyzed in human blood samples. As to the specific efficacy of a drug, the individual patient's response is related to variability in the protein to which the drug binds. Side-effects from medications also vary due to different proteins involved in the immune response. Hence, at a basic level, all of the goods and services of Registrant and of Applicant are directed toward individualizing drug therapies.

Moreover, the Trademark Examining Attorney has provided for the record evidence showing the same companies involved in research, in diagnostics and in treatment in the fields of genetics and of immunology.⁴ Accordingly, we find that the respective goods and services must be considered related, and this *du Pont* factor favors a finding of likelihood of confusion.

C. Trade Channels

Applicant identifies its target customers as including medical doctors, genetic scientists and healthcare professionals. Registrant identifies its uses as scientific research as well as "treatment of cancer, infectious diseases, autoimmune diseases" Thus, medical, healthcare and scientific research personnel would seem to use both Applicant's and Registrant's goods and services. Moreover, we are not persuaded by Applicant's arguments that "... Registrant's goods are offered and sold by Registrant through its specialized sales representatives and distributors to

⁴ These include the Texas Biomedical Research Institute; Humigen, The Institute for Genetic Immunology; the SardiNIA Study of Aging; Altogen Biosystems; Covance, Inc.; Hycult Biotech; Immco Diagnostics; LGC Group, Ltd.; Life Technologies; and Transgenomic, Inc.

commercial purchasing agents ...” The description of Registrant’s goods and services contains no such limitations. Hence, we find that these respective goods and services are targeted to the same group of scientific and medical professionals, employed in many of the same types of institutions, and this *du Pont* factor favors a finding of likelihood of confusion.

D. Conditions of Sale / Sophistication of Purchasers

As described above, it seems quite likely that the scientists and physicians who would be relying upon these respective goods and services are fairly sophisticated professionals. While we cannot be sure of the sophistication of the actual purchasing agents at these scientific and healthcare institutions, we do find that this *du Pont* factor favors slightly a finding of no likelihood of confusion.

E. Conclusions on Likelihood of Confusion

With quite similar marks and related goods and services moving through some of the same trade channels to researchers and healthcare professionals, we find overall a likelihood of confusion herein despite the probability that many of the involved purchasers may be fairly sophisticated.

Decision: The refusal to register Applicant’s mark **PROOVE** under Section 2(d) of the Lanham Act is hereby affirmed.



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prove



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Dictionary

prove

verb | \ˈpruːv\

SAVE POPULARITY

Share

- to show the existence, truth, or correctness of (something) by using evidence, logic, etc.
- to show that (someone or something) has a particular quality, ability, etc.
- to turn out to be

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proved | proved or prov-en | \ˈprü-vən, British also ˈprō- | prov-ing | \ˈprü-vɪŋ\

Full

trans:

1 a

2 a



rove a will at

- probate> **Lay vs. Lie** **'Try and' vs. 'Try to'**
- b** : to test the worth or quality of; *specifically* : to compare against a standard —sometimes used with *up* or *out*
- c** : to check the correctness of (as an arithmetic result)
- 3 a** : to establish the existence, truth, or validity of (as by evidence or logic) <prove a theorem> <the charges were never *proved* in court>
- b** : to demonstrate as having a particular quality or worth <the vaccine has been *proven* effective after years of tests> <*proved* herself a great actress>
- 4** : to show (oneself) to be worthy or capable <eager to *prove* myself in the new job>

intransitive verb

- to turn out especially after trial or test <the new drug *proved* effective>
- **prov-able** | \ˈprü-və-bəl\ | *adjective*
- **prov-able-ness** | *noun*
- **prov-ably** | \-blē\ | *adverb*

Word of the Day | JULY 15, 2015

innocuous

harmless or inoffensive

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Improbable dialogue on HBO's True Detective ...



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Examples of PROVE

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The charges against him were never *proved* in court.
Merriam-Webster on Facebook >
It could not be *proven* that the suspect stole the money.
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mathematicians trying to *prove* a theorem

To *prove* her point, she got out the old research.

The tests *proved* the vaccine to be effective.

Her second album was a hit that *proved* her critics wrong.

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Origin of PROVE

Middle English, from Anglo-French *prover*, *pruver*, from Latin *probare* to test, prove, from *probus* good, honest, from *pro-* for, in favor + *-bus* (akin to Old English *bēon* to be) — more at [PRO-](#), [BE](#)

First Known Use: 13th century

Related to PROVE

Synonyms

[demonstrate](#), [document](#), [establish](#), [substantiate](#), [validate](#)

Antonyms

[disprove](#), [rebut](#), [refute](#)

[+] [more](#)

PROVE Defined for Kids

prove

verb | \ˈprüv\

proved **proved** or **prov·en** | \ˈprü-vən\ **prov·ing**

Definition of PROVE for Kids

- 1 : to show the truth or existence of something with facts <I can *prove* he's guilty.>
- 2 : to turn out to be <The climb *proved* more difficult than they had expected.>
- 3 : to check the correctness of <*prove* the math theory>
- 4 : to test by experiment or by a standard <Tests *proved* that the vaccine is effective.>

Learn More About PROVE

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Seen & Heard

What made you want to look up *prove*? Please tell us where you read or heard it (including the quote, if possible).

16 comments



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Linda Landry Horne · Halifax, Nova Scotia

I was watching "The Great British Baking Show" and the contestants proved the dough. In this context it refers to letting the dough rise.

[Reply](#) · [Like](#) · February 15 at 5:49pm



Akande Olaoluwa · Chief Executive Officer at Self-Employed

i love my music to full of provable please send as much as you can send.

[Reply](#) · [Like](#) · November 5, 2014 at 2:57am



Akande Olaoluwa · Chief Executive Officer at Self-Employed

i am a music writer

[Reply](#) · [Like](#) · November 5, 2014 at 2:54am



Gerry Jurrens

A friend wrote "I really dislike when I prove my natural hair color? I was looking for a definition that pertained to a process involved in the maintenance of hair. I didn't find one here.

[Reply](#) · [Like](#) · October 2, 2013 at 2:04pm



Mia Scullark · Regional Sales Manager at Regional Sales Associate (MORTGAGE LENDING)

I saw prove on a Law Case. To eject the possessor of land or to remove a cloud from title, the plaintiff must aver and prove title in himself.

[Reply](#) · [Like](#) · 2 · June 1, 2013 at 5:29pm

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ProVE® MHC Class I Pentamer Libraries

ProVE® MHC Class I Pentamer Libraries provide a quick and cost effective way of screening a number of peptides implicated as epitopes in the immune response under investigation.

ProVE® Libraries bridge the gap between the screening of high numbers of T cell epitopes and the in-depth monitoring and characterization of single specificity CD8+ T cell immune responses with our individually manufactured Pro5® MHC Class I Pentamers. A cost reduction of more than 80% is achievable compared to the synthesis of standard MHC reagents.

ProVE® Pentamer Library Features

Rapid high throughput synthesis process	Fast delivery time (2-3 weeks). A large number of Pentamers can be delivered together.
Flexibility in supplying the peptide	Custom peptides can be synthesized by ProImmune or supplied by the customer.
Full QC for each Pentamer	Consistent and reliable performance compared with self-made tetramers or self-loaded dimeric MHC products.
Low price per multimer and no custom set up charges	Up to 80% cost reduction per reagent when compared to the synthesis of standard Pentamers

Product Specification

A ProVE® Pentamer Library is a set of custom Pentamers. The customer specifies the MHC allele under investigation and provides a small quantity of each of the peptides of interest. Alternatively, a [custom synthesis](#) of the chosen peptides may be ordered from ProImmune at competitive rates.

ProImmune manufactures the Pentamers using a rapid, high throughput, parallel synthesis process and supplies them unlabeled and at a minimum quantity of 20 tests. There is a minimum order of 10 Pentamers per ProVE® Library per allele.

ProVE® Pentamers are suitable for multiplexed staining of antigen-specific T cells in flow cytometry. This enables the user to identify and quantitate different populations of single antigen-specific CD8+ T cells very rapidly and attain conclusive validation of new T cell epitopes.

Quality Control

Each ProVE® Pentamer is QC tested. The protein concentration is determined and translated into quantity for each product. The customer pays for the complete synthesis run and receives those ProVE® Pentamers that pass quality control. The average QC pass rate for HLA-A*02:01 ProVE® Pentamers is 85% for peptides with scores >21 in the SYFPEITHI epitope prediction algorithm (www.syfpeithi.com).

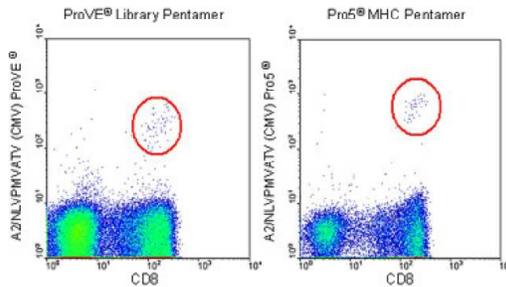
Before proceeding with an order, ProImmune will review the sequences of the peptides submitted for inclusion in the ProVE® Pentamers and will notify the customer of any anticipated problem sequences.

Feature Comparison

	ProVE® Pentamer Libraries	Custom Pro5® Pentamers
Target Applications	Epitope screening Epitope validation, e.g. following ELISPOT analysis Mutagenesis studies	Quantitative epitope confirmation Immune monitoring of confirmed epitopes
Available Alleles	HLA-A*01:01, 02:01, 03:01, 11:01, 24:02, 29:02 HLA-B*07:02, 08:01, 14:02, 15:01, 27:05, 35:01, 40:01 H-2 Kb, Db, Kd, Dd, Ld Mamu A*01, A*02	HLA-A*01:01, 02:01, 03:01, 11:01, 11:03, 24:02, 29:02, 68:01 HLA-B*07:02, 08:01, 14:02, 15:01, 27:05, 35:01, 35:08, 40:01, 51:01, 54:01 H-2 Db, Dd, Kb, Kd, Ld Chimeric A02:01/Kb Mamu A*01, A*02
Minimum Order	10 ProVE® Pentamers	1 Pro5® Pentamer

Delivery Time	2-3 weeks from receipt of peptides	Catalog items 1-2 weeks Custom items 4-6 weeks
Custom Set Up Charge	No	Yes
Pack Size	20-50 tests	50, 150 or 500 tests
Synthesis Process	Rapid high throughput synthesis	Extended synthesis for maximum purity and quality
Quality Control	Full QC process incl. pass/fail QC provided for each reagent	Full QC process
Fluorescent Labels	Pro5® Biotag, R-PE, APC	Pro5® Biotag, R-PE, APC
Labeling Method	Supplied with separate Pro5® Biotag or Fluorotag (R-PE or APC), for two layer staining	Pre-conjugated with Biotin, R-PE or APC Or supplied with separate Pro5® Biotag or Fluorotag (R-PE or APC), for two layer staining
Who Provides the Peptide?	Provided by customer Or synthesized by ProImmune	Synthesized by ProImmune for full quality control
What Do I Receive?	All ProVE® Pentamers that pass quality control	The custom Pentamer
Guarantee Period	3 months, stored at 4°C	Biotin, R-PE or APC labeled: 6 months, stored at 4°C Unlabeled: 12 months, stored at -80°C

Comparative Staining of PBMC with ProVE® MHC Pentamers and Pro5® MHC Pentamers



Peripheral blood lymphocytes were obtained from a healthy donor previously shown to respond to the A2-restricted CMV epitope, at approx. 0.15% of total PBMC. The left plot shows cells stained with the ProVE® MHC Pentamer, while the right plot shows cells stained with Pro5® MHC Pentamer made by the conventional process. The antigen-specific population is circled in red on both plots.

(Experimental procedure: cells were incubated with 1µg recombinant A2/CMV complex, followed by 1 test of PE-labeled Pro5® Fluorotag & 1 test of FITC-labeled anti-CD8 antibody (Clone LT8). Approximately 30,000 events are shown in each plot).