

BULK ANTIBODIES
for *in vivo*
RESEARCH

α-CD4 **α-CD8** **α-CD25** **α-NK1.1** **α-Ly6G**

Discover More

BioCell



151 (2)

J Immunol 1993; 151:546-1166; ;
<http://www.jimmunol.org/content/151/2.citation>

This information is current as
of November 19, 2019.

Why *The JI*? [Submit online.](#)

- **Rapid Reviews! 30 days*** from submission to initial decision
- **No Triage!** Every submission reviewed by practicing scientists
- **Fast Publication!** 4 weeks from acceptance to publication

**average*

- Subscription** Information about subscribing to *The Journal of Immunology* is online at:
<http://jimmunol.org/subscription>
- Permissions** Submit copyright permission requests at:
<http://www.aai.org/About/Publications/JI/copyright.html>
- Email Alerts** Receive free email-alerts when new articles cite this article. Sign up at:
<http://jimmunol.org/alerts>

The Journal of Immunology is published twice each month by
The American Association of Immunologists, Inc.,
1451 Rockville Pike, Suite 650, Rockville, MD 20852
All rights reserved.
Print ISSN: 0022-1767 Online ISSN: 1550-6606.



The Journal of Immunology

Contents

Volume 151 • Number 2 • July 15, 1993

544 Joseph F. Saunders, In Memoriam

Cellular Immunology and Immune Regulation

- 546 Lymphokine-Activated Killer Cell Activity of CD4⁻CD8⁻ TCR $\alpha\beta$ ⁺ Thymocytes
Hisashi Arase, Noriko Arase-Fukushi, Robert A. Good, and Kazunori Onoé
- 556 Influence of the T Cell Receptor α -Chain on T Cell Reactivity and Tolerance to Mls-1 in T Cell Receptor β -Chain Transgenic Mice
Marcia A. Blackman, Hedy P. Smith, Phuong Le, and David L. Woodland
- 566 Identification of a Transitional Preapoptotic Population of Thymocytes
Gerald M. Cohen, Xiao-Ming Sun, Roger T. Snowden, Michael G. Ormerod, and David Dinsdale
- 575 The Age-Associated Increase in IFN- γ Synthesis by Mouse CD8⁺ T Cells Correlates with Shifts in the Frequencies of Cell Subsets Defined by Membrane CD44, CD45RB, 3G11, and MEL-14 Expression
David N. Ernst, William O. Weigle, Daniel J. Noonan, Donald N. McQuitty, and Monte V. Hobbs
- 588 IL-4, But Not Tumor Necrosis Factor- α , Increases Endothelial Cell Adhesiveness for Lymphocytes by Activating a cAMP-Dependent Pathway
P. Galéa, G. Thibault, M. Lacord, P. Bardos, and Y. Lebranchu
- 597 Functionally Anergic *lpr* and *gld* B220⁺ T Cell Receptor (TCR)- α/β ⁺ Double-Negative T Cells Express CD28 and Respond to Costimulation with Phorbol Myristate Acetate and Antibodies to CD28 and the TCR
Thomas Giese, James P. Allison, and Wendy F. Davidson
- 610 Lack of Voltage Sensitive Potassium Channels and Generation of Membrane Potential by Sodium Potassium ATPase in Murine T Lymphocytes
Yasuo Ishida and Thomas M. Chused
- 621 Effect of bcl-2 on Fas Antigen-Mediated Cell Death
Naoto Itoh, Yoshihide Tsujimoto, and Shigekazu Nagata
- 628 Identification of a G Protein Coupled Receptor Induced in Activated T Cells
Mark H. Kaplan, David I Smith, and Roy S. Sundick
- 637 Tyrosine Phosphorylation of Phospholipase C Concomitant with Its Activation by Platelet-Activating Factor in a Human B Cell Line
Abraham Kuruvilla, Girish Putcha, Elena Poulos, and William T. Shearer
- 649 T-Cell Presentation of Antigen Requires Cell-to-Cell Contact for Proliferation and Anergy Induction: Differential MHC Requirements for Superantigen and Autoantigen
Janine M. LaSalle, Frances Toneguzzo, Mark Saadeh, David E. Golan, Robert Taber, and David A. Hafler

The *Journal of Immunology* (ISSN 0022-1767) is published twice each month by The American Association of Immunologists, 428 East Preston Street, Baltimore, MD 21202. Subscription rates \$170 (\$260 foreign); institutions \$300 (\$390 foreign); single copy \$10 (\$15 foreign). Air Printed Matter rates are available on request from Customer Service, 428 E. Preston St., Baltimore, MD 21202-3993. Indexed by *Current Contents* and *Index Medicus*. Second class postage paid at Baltimore, MD 21202 and at additional mailing offices. Country of origin USA. Printed on acid-free paper which can be recycled. Postmaster: Send address changes to The Journal of Immunology, East Preston Street, Baltimore, MD 21202. Copyright © 1993 by The American Association of Immunologists.

- 658 Cognate Peptide-Induced Destruction of CD8⁺ Cytotoxic T Lymphocytes Is Due to Fratricide
Michael W.-C. Su, Peter R. Walden, and Herman N. Eisen
- 668 Differential Activation of CD8⁺ T Cells by Transforming Growth Factor- β 1
Hon-Man Lee and Susan Rich
- 678 Structural Complexity of Antigenic Determinants for Class I MHC-Restricted, Hapten-Specific T Cells: Two Qualitatively Differing Types of H-2K-Restricted TNP Epitopes
Stefan Martin, Arne von Bonin, Christine Fessler, Ulrike Pflugfelder, and Hans Ulrich Weltzien
- 688 Analysis of T-Cell Receptor $\alpha\beta$ Chains of CD8⁺ Suppressor T Cells Induced by Tolerogenic Conjugates of Antigen and Monomethoxypolyethylene Glycol: Involvement of TCR α -CDR3 Domain in Immunosuppression
Subhra Mohapatra, Youhai Chen, Masaru Takata, Shyam S. Mohapatra and Alec H. Sehon
- 699 Peripheral T Cells in Mice Lacking p56 Do Not Express Significant Antiviral Effector Functions
Thierry J. Molina, Martin F. Bachmann, Thomas M. Kündig, Rolf M. Zinkernagel, and Tak W. Mak
- 707 CD53, a Protein with Four Membrane-Spanning Domains, Mediates Signal Transduction in Human Monocytes and B Cells
Johanna Olweus, Fridtjof Lund-Johansen, and Vaclav Horejsi
- 717 Selective Expression of Integrin $\alpha 4\beta 7$ on a Subset of Human CD4⁺ Memory T Cells with Hallmarks of Gut-Trophism
Tamas Schweighoffer, Yoshiya Tanaka, Mark Tidswell, David J. Erle, Kevin J. Horgan, Gale E. Ginther Luce, Andrew I. Lazarovits, David Buck, and Stephen Shaw
- 730 Differential Tyrosine-Specific Protein Phosphorylation in Mouse T Lymphocyte Subsets: Effect of Age
Jia Shi and Richard A. Miller
- 740 Mechanisms of Cytotoxicity Used by Human Peripheral Blood CD4⁺ and CD8⁺ T Cell Subsets: The Role of Granule Exocytosis
Mark J. Smyth and John R. Ortaldo
- 748 Extensive Apoptosis Occurring in the Thymus During Accelerated Rejection of Cardiac Allografts in Presensitized Rats
Kazuo Tanaka, Yasuhiro Koga, Xin-Ying Zhang, Masafumi Sasaki, Ye Wang, Genki Kimura, and Kikuo Nomoto
- 759 A Kinetic Study on the Deletion of Thymic, Peripheral, and Gut-Associated $V\beta 6^+$ T Cells in an Mls-1 BALB/c Colony Infected with an Exogenous Mouse Mammary Tumor Virus
Carolyn L. Tucek, Catherine Desaynard, and Martine Papiernik
- 767 Episialin (MUC1) Inhibits Cytotoxic Lymphocyte-Target Cell Interaction
Elly van de Wiel-van Kemenade, Marjolijn J. L. Ligtenberg, Annemiek J. de Boer, Femke Buijs, Hans L. Vos, Cornelis J. M. Melief, John Hilkens, and Carl G. Figdor
- 777 CD8 Inhibits Signal Transduction through the T Cell Receptor in CD4⁻CD8⁻ Thymocytes from T Cell Receptor Transgenic Mice Reconstituted with a Transgenic CD8 α Molecule
Nicolai S. C. van Oers, Soo-Jeet Teh, Alex M. Garvin, Katherine A. Forbush, Roger M. Perlmutter, and Hung-Sia Teh
- 791 Antigen- and Isotype-Specific Immune Responses to a Recombinant Antigen-Allergen Chimeric (RAAC) Protein
Lei Zhang, and Shyam S. Mohapatra

Molecular and Structural Immunology

- 800 The Human VH3b Gene Subfamily Is Highly Polymorphic
Elisabeth E. Adderson, Farrukh H. Azmi, Patricia M. Wilson, Penelope G. Shackelford, and William L. Carroll

- 810 Molecular Cloning of a Novel Human hsp70 from a B Cell Line and Its Assignment to Chromosome 5
Dehmani M. Fathallah, Dorra Cherif, Koussay Dellagi, and M. Amin Arnaout
- 814 Molecular Analysis of Spontaneous Nephrotropic Anti-Laminin Antibodies in an Autoimmune MRL-lpr/lpr Mouse
Mary H. Foster, Jorge Sabbaga, Sergio R. P. Line, Kirsten S. Thompson, Kathleen J. Barrett, and Michael P. Madaio
- 825 Restrictions in the Repertoire of Allospecific T Cells: Contribution of the α -Helical Sequence Polymorphism of HLA-DR Molecules
Jörg J. Goronzy, Congping Xie, Weining Hu, Steven K. Lundy, and Cornelia M. Weyand
- 837 Analysis of the Preexisting and Nuclear Forms of Nuclear Factor of Activated T Cells
Jugnu Jain, Zoe Miner, and Anjana Rao
- 849 V Gene Analysis of Anticardiolipin Antibodies from MRL-lpr/lpr Mice
Yasuhiko Kita, Takayuki Sumida, Kenji Ichikawa, Toshiro Maeda, Fumiko Yonaha, Itsuo Iwamoto, Sho Yoshida, and Takao Koike
- 857 Functional Identification of Transcription Control Sequences of the Mouse Crry Gene
Brian K. Martin and John H. Weis
- 870 Assembly of the T-Cell Antigen Receptor: Participation of the CD3 ω Chain
Anne Neisig, Annette Vangsted, Jesper Zeuthen, and Carsten Geisler
- 880 Induction of CREB Activity Via the Surface Ig Receptor of B Cells
Huijuan Xie, Thomas C. Chiles, and Thomas L. Rothstein

Host Defense

- 890 Identification of Caucasian CD4 T Cell Epitopes on the Circumsporozoite Protein of *Plasmodium vivax*: T Cell Memory
Janine Bilsborough, Melissa Carlisle, and Michael F. Good
- 900 Inability of Truncated Recombinant Osp A Proteins To Elicit Protective Immunity to *Borrelia burgdorferi* in Mice
Linda K. Bockenstedt, Erol Fikrig, Stephen W. Barthold, Fred S. Kantor, and Richard A. Flavell
- 907 Effect of in Vivo Inhibition of Nitric Oxide Production in Murine Leishmaniasis
Thomas G. Evans, Louise Thai, Donald L. Granger, and John B. Hibbs, Jr.
- 916 IFN- γ Involvement in the Severity of Gram-Negative Infections in Mice
Josiane Kohler, Didier Heumann, Gianni Garotta, Didier LeRoy, Sylvie Bailat, Catherine Barras, Jean-Daniel Baumgartner, and Michel Pierre Glauser
- 922 Immunization of Mice with *Yersinia enterocolitica* Leads to the Induction of Antithyrotropin Receptor Antibodies
Guoyang Luo, Ji-Lao Fan, Gattadahalli S. Seetharamaiah, Rajesh K. Desai, John S. Dallas, Neelam Wagle, Richard Doan, David W. Niesel, Gary R. Klimpel, and Bellur S. Prabhakar
- 929 Role and Effect of IL-2 in Experimental Visceral Leishmaniasis
Henry W. Murray, G. Diego Miralles, Mark Y. Stoeckle, and David F. McDermott

Inflammation

- 939 Expression of Decay-Accelerating Factor (CD55) of the Complement System on Human Spermatozoa
Florence Cervoni, Teresa J. Oglesby, Patrick Fénelich, Gottfried Dohr, Bernard Rossi, John P. Atkinson, and Bae-Li Hsi
- 949 Fixation of C3 to IgG Attenuates Neutrophil HOCl Generation and Collagenase Activation
W. Winn Chatham and Warren D. Blackburn, Jr.

- 959 Binding, Internalization, and Deacylation of Bacterial Lipopolysaccharide by Human Neutrophils
Michael Luchi and Robert S. Munford
- 970 Transforming Growth Factor- β and IL-1 β Act in Synergy To Enhance IL-6 Secretion by the Intestinal Epithelial Cell Line, IEC-6
Dennis W. McGee, Kenneth W. Beagley, Wilhelm K. Aicher, and Jerry R. McGhee
- 979 Transforming Growth Factor- β Primes Macrophages to Express Inflammatory Gene Products in Response to Particulate Stimuli by an Autocrine/Paracrine Mechanism
Paul W. Noble, Peter M. Henson, Catherine Lucas, Marina Mora-Worms, Phillippe C. Carré, and David W. H. Riches
- 990 Cytoplasmic Tails of Human Complement Receptor Type 3 (CR3, CD11b/CD18) Regulate Ligand Avidity and the Internalization of Occupied Receptors
Hamid Rabb, Masahiro Michishita, Chander P. Sharma, Dennis Brown, and M. Amin Arnaout
- 1003 Alterations in Fc ϵ RI Induced by Protoporphyrin Plus Long-Wavelength Ultraviolet Light in Mouse Bone Marrow-Derived Mast Cells
An Yen, Fu-Tong Liu, Kim E. Barrett, and Irma Gigli

Clinical Immunology

- 1013 Multiple Neutralizing B-Cell Epitopes of Human T-Cell Leukemia Virus Type 1 (HTLV-1) Identified by Human Monoclonal Antibodies: A Basis for the Design of an HTLV-1 Peptide Vaccine
Eishi Baba, Minoru Nakamura, Yuetsu Tanaka, Mika Kuroki, Yasuto Itoyama, Shuji Nakano, and Yoshiyuki Niho
- 1025 Cryptic Epitopes on the Nicotinic Acetylcholine Receptor Are Recognized by Autoreactive CD4⁺ Cells
Matteo Bellone, Norma Ostlie, Peter Karachunski, Angelo A. Manfredi, and Bianca M. Conti-Tronconi
- 1039 Cyclosporin A-Induced Autoimmune Disease in Mice
R. Pat Bucy, Xiao Yan Xu, Jimin Li, and Guo qiang Huang
- 1051 Autoanti-Red Cell Antibodies Synthesized by Patients with Infectious Mononucleosis Utilize the V_H4-21 Gene Segment
Caroline J. Chapman, Myfanwy B. Spellerberg, Graham A. Smith, Stephen J. Carter, Terry J. Hamblin, and Freda K. Stevenson
- 1062 Heterogeneity of Human Sperm Surface Antigens Identified by Indirect Immunoprecipitation of Antisperm Antibody Bound to Biotinylated Sperm
Osmond J. D'Cruz, Gilbert G. Haas, Jr., and Hovey Lambert
- 1075 Humanized Mik β 1, A Humanized Antibody to the IL-2 Receptor β -Chain That Acts Synergistically with Humanized Anti-TAC
John Hakimi, Victoria C. Ha, Ping Lin, Elaine Campbell, Maurice K. Gately, Mitsuro Tsudo, Philip W. Payne, Thomas A. Waldmann, Angus J. Grant, Wen-Hui T sien, and William P. Schneider
- 1086 CD2⁻CD4⁻CD8⁻ Lymph Node T Lymphocytes In MRL *lpr/lpr* Mice Are Derived from a CD2⁺CD4⁺CD8⁺ Thymic Precursor
Michelle M. Tutt Landolfi, Nancy Van Houten, Jennifer Q. Russell, Roland Scollay, Jane R. Parnes, and Ralph C. Budd
- 1097 Induction of HIV-Specific Cytotoxic T Lymphocytes In Vivo With Hybrid HIV-1 V3:Ty-Virus-Like Particles
Guy T. Layton, Stephen J. Harris, Andrew J. H. Gearing, Michele Hill-Perkins, Julie S. Cole, Joanne C. Griffiths, Nigel R. Burns, Alan J. Kingsman, and Sally E. Adams
- 1108 Detection and Epitope Analysis of Autoantigen-Reactive T Cells to the U1-Small Nuclear Ribonucleoprotein A Protein in Autoimmune Disease Patients
Mitsuo Okubo, Kazuhiko Yamamoto, Tomohiro Kato, Naoko Matsuura, Tomoe Nishimaki, Reiji Kasukawa, Koji Ito, Yutaka Mizushima, and Kusuki Nishioka

- 1116 Studies on the Mechanisms by which Transforming Growth Factor- β (TGF- β) Protects against Allergic Encephalomyelitis: Antagonism between TGF- β and Tumor Necrosis Factor
Laura Santambrogio, Gerald M. Hochwald, Babita Saxena, Chin-Hung Leu, Joseph E. Martz, Joseph A. Carlino, Nancy H. Ruddle, Michael A. Palladino, Leslie I. Gold, and G. Jeanette Thorbecke
- 1128 Possible Pathogenic Role of Cationic Anti-DNA Autoantibodies in the Development of Nephritis in Patients with Systemic Lupus Erythematosus
Noboru Suzuki, Tatsuhiro Harada, Yutaka Mizushima, and Tsuyoshi Sakane
- 1137 Detection of Glycosylation Abnormality in Rheumatoid IgG using N-Acetylglucosamine-Specific *Psathyrella velutina* Lectin
Naoyuki Tsuchiya, Tamao Endo, Kunio Matsuta, Sadayoshi Yoshinoya, Fujio Takeuchi Yoshinobu Nagano, Michiko Shiota, Kiyoshi Furukawa, Naohisa Kochibe, Koji Ito, and Akira Kobata
- 1147 Induction of Transforming Growth Factor- β during Cardiac Allograft Rejection
Johannes Waltenberger, Alkwin Wanders, Bengt Fellström, Kohei Miyazono, Carl-Henrik Heldin, and Keiko Funa
- 1158 Rapamycin Treatment Depresses Intragraft Expression of KC/MIP-2, Granzyme B, and IFN- γ in Rat Recipients of Cardiac Allografts
Kenneth J. Wieder, Wayne W. Hancock, Georg Schmidbauer, Cindy L. Corpier, Irene Wieder, Lester Kobzik, Terry B. Strom, and Jerzy W. Kupiec-Weglinski
- 1167 Author Index
- 1169 Information for Contributors
- 1172 Submission Form
- 1173 Membership Form
- 1174 Announcements