



Engineered Reporter Cell Lines

See-through immune signaling pathways

InVivoGen



159 (7)

J Immunol 1997; 159:3093-3667; ;
<http://www.jimmunol.org/content/159/7.citation>

This information is current as
of October 29, 2020.

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.





CUTTING EDGE

- 3093 **Commentary: Generation of Diversity in Mammalian Gut-Associated Lymphoid Tissues: Restricted V Gene Usage Does Not Preclude Complex V Gene Organization**
Claude-Agnès Reynaud, Vinciane Dufour, and Jean-Claude Weill
- 3096 **Fas and Fas Ligand Enhance the Pathogenesis of Experimental Allergic Encephalomyelitis, but Are Not Essential for Immune Privilege in the Central Nervous System**
Kimberly A. Sabelko, Kathleen A. Kelly, Moon H. Nahm, Anne H. Cross, and John H. Russell
- 3100 **Fas- and FasL-Deficient Mice Are Resistant to Induction of Autoimmune Encephalomyelitis**
Hanspeter Waldner, Raymond A. Sobel, Edward Howard, and Vijay K. Kuchroo
- 3104 **Long-Term Inhibition of Murine Lupus by Brief Simultaneous Blockade of the B7/CD28 and CD40/gp39 Costimulation Pathways**
David I. Daikh, Barbara K. Finck, Peter S. Linsley, Diane Hollenbaugh, and David Wofsy
- 3109 **Thymic Expression of Autoantigens Correlates with Resistance to Autoimmune Disease**
Charles E. Egwuagu, Puwat Charukamnoetkanok, and Igal Gery

On the cover: Graphical representations of MHC class I molecules H-2D^b and HLA-A2.1. Identical residues are shown in green. A murine CTL clone (AHIII12.2) displays peptide-specific recognition of both of these molecules, and cytolytic assays suggest that these are functionally equivalent epitopes. This TCR appears to make a different, but overlapping, set of contacts with each class I/peptide complex. In this instance, cross-recognition appears to be the result of both shared and complex-specific contacts. (Figure 8 from Loftus, D. J., Y. Chen, D. G. Covell, V. H. Engelhard, and E. Appella. 1997. Differential contact of disparate class I/peptide complexes as the basis for epitope cross-recognition by a single T cell receptor. *J. Immunol.* 158:3651.)

The Journal of Immunology (ISSN 0022-1767) is published twice each month by The American Association of Immunologists, 9650 Rockville Pike, Bethesda, MD 20814. Subscription rates: U.S.A. AND POSSESSIONS: personal, \$225.00; institutional, \$400.00; single copy, \$15.00. FOREIGN (incl. Canada): personal, \$330.00; institutional, \$500.00; single copy, \$20.00. Air Printed Matter rates are available on request from Customer Service, The Journal of Immunology, 9650 Rockville Pike, Bethesda, MD 20814-3998. Indexed by *Current Contents* and *Index Medicus*. Periodicals postage paid at Bethesda, MD 20814 and at additional mailing offices. Country of origin USA. Printed on acid-free recyclable paper. Postmaster: Send address changes to The Journal of Immunology, 9650 Rockville Pike, Bethesda, MD 20814-3998. Copyright © 1997 by The American Association of Immunologists.

- 3113 Induction of Tissue-Specific Autoimmune Prostatitis with Prostatic Acid Phosphatase Immunization: Implications for Immunotherapy of Prostate Cancer
Lawrence Fong, Curtis L. Ruegg, Dirk Brockstedt, Edgar G. Engleman, and Reiner Laus

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

- 3119 Mitogenicity of DNA from Different Organisms for Murine B Cells
Siquan Sun, Caroline Beard, Rudolf Jaenisch, Peter Jones, and Jonathan Sprent
- 3126 B Cells in the Bursa of Fabricius Express a Novel C-Type Lectin Gene
Ryo Goitsuka, Chen-lo H. Chen, and Max D. Cooper
- 3133 B Cells Genetically Deficient in the c-Rel Transactivation Domain Have Selective Defects in Germline C_H Transcription and Ig Class Switching
Piotr Zelazowski, Daniel Carrasco, Fabio R. Rosas, Mark A. Moorman, Rodrigo Bravo, and Clifford M. Snapper
- 3140 Cyclosporine-Insensitive Partial Signaling and Multiple Roles of Ca²⁺ in Fas Ligand-Induced Lysis
Amy M. Rogers, Anja R. B. Thilenius, and John H. Russell
- 3148 CTL Generation in the Presence of IL-4 Is Inhibited by Free p40: Evidence for Early and Late IL-12 Function
Kaveh Abdi and Steven H. Herrmann
- 3156 Induction of T Cell Clonal Anergy Results in Resistance, Whereas CD28-Mediated Costimulation Primes for Susceptibility to Fas- and Bax-Mediated Programmed Cell Death
Vassiliki A. Boussiotis, Bohyung J. Lee, Gordon J. Freeman, John G. Gribben, and Lee M. Nadler
- 3168 B Cell Receptor Cross-Linking Prevents Fas-Induced Cell Death by Inactivating the IL-1 β -Converting Enzyme Protease and Regulating Bcl-2/Bcl-x Expression
Alexandra Brás, Carlos Martinez-A., and Elena Baixeras
- 3178 Regulation of Human Monocyte Apoptosis by the CD14 Molecule
Stefan Heidenreich, Michael Schmidt, Christian August, Paul Cullen, André Rademaekers, and Hans-Gerd Pauels
- 3189 NK Cell Receptor Calibration: Effects of MHC Class I Induction on Killing by Ly49A^{high} and Ly49A^{low} NK Cells
Mats Y. Olsson-Alheim, Margarita Salcedo, Hans-Gustaf Ljunggren, Klas Kärre, and Charles L. Sentman
- 3195 Down-Regulation of the Expression and Function of the Transporter Associated with Antigen Processing in Murine Tumor Cell Lines Expressing IL-10
Flavio Salazar-Onfray, Jehad Charo, Max Petersson, Sofia Freland, Gabriele Noffz, Zhihai Qin, Thomas Blankenstein, Hans-Gustaf Ljunggren, and Rolf Kiessling
- 3203 Differential Requirement of Protein Tyrosine Kinases and Protein Kinase C in the Regulation of T Cell Locomotion in Three-Dimensional Collagen Matrices
Frank Entschladen, Bernd Niggemann, Kurt S. Zänker, and Peter Friedl

- 3211 HLA-DR-Triggered Inhibition of Hemopoiesis Involves Fas/Fas Ligand Interactions and Is Prevented by *c-kit* Ligand
Jong Wook Lee, Geoffrey M. Gersuk, Peter A. Kiener, Cassandra Beckham, Jeffrey A. Ledbetter, and H. Joachim Deeg
- 3220 The SH3 Domain of Itk/Emt Binds to Proline-Rich Sequences in the Cytoplasmic Domain of the T Cell Costimulatory Receptor CD28
Luc E. M. Marengère, Klaus Okkenhaug, Anne Clavreul, Dominique Couez, Spencer Gibson, Gordon B. Mills, Tak W. Mak, and Robert Rottapel
- 3230 In Vivo T Helper Cell Response to Retro-Inverso Peptidomimetics
Chrystelle Mézière, Mireille Viguié, Hélène Dumortier, Richard Lo-Man, Claude Leclerc, Jean-Gérard Guillet, Jean-Paul Briand, and Sylviane Muller
- 3238 The Processing Routes Determined by Negatively Charged Residues in DR1-Restricted T Cell Determinants
Chantal Robadey, Wim Ammerlaan, Claude Muller, Isabelle Cloutier, Rafick-Pierre Sékaly, Jacques-Antoine Haefliger, and Stéphane Demotz
- 3247 Human Endothelial Cell Costimulation of T Cell IFN- γ Production
David M. Briscoe, Lori E. Henault, Christopher Geehan, Stephen I. Alexander, and Andrew H. Lichtman
- 3257 Partial Activation of Naive CD4 T cells and Tolerance Induction in Response to Peptide Presented by Resting B Cells
Michael Croft, Sean B. Joseph, and Kent T. Miner
- 3266 $\gamma\delta$ T Cells of Human Early Pregnancy Decidua: Evidence for Local Proliferation, Phenotypic Heterogeneity, and Extrathymic Differentiation
Lucia Mincheva-Nilsson, Maria Kling, Sten Hammarström, Olga Nagaeva, Karl-Gösta Sundqvist, Marie-Louise Hammarström, and Vladimir Baranov
- 3278 Regulation of B Lymphocyte Development and Activation by the CD19/CD21/CD81/Leu 13 Complex Requires the Cytoplasmic Domain of CD19
Shinichi Sato, Ann S. Miller, Maureen C. Howard, and Thomas F. Tedder
- 3288 Characterization of Lymphotoxin- $\alpha\beta$ Complexes on the Surface of Mouse Lymphocytes
Jeffrey L. Browning, Irene Douglas Sizing, Pornsri Lawton, Paul R. Bourdon, Paul D. Rennert, Gerard R. Majeau, Christine M. Ambrose, Catherine Hession, Konrad Miatkowski, David A. Griffiths, Apinya Ngam-ek, Werner Meier, Christopher D. Benjamin, and Paula S. Hochman
- 3299 Cytotoxic Activities of Recombinant Soluble Murine Lymphotoxin- α and Lymphotoxin- $\alpha\beta$ Complexes
Fabienne Mackay, Paul R. Bourdon, David A. Griffiths, Pornsri Lawton, Mohammad Zafari, Irene Douglas Sizing, Konrad Miatkowski, Apinya Ngam-ek, Christopher D. Benjamin, Catherine Hession, Christine M. Ambrose, Werner Meier, and Jeffrey L. Browning

MOLECULAR AND STRUCTURAL IMMUNOLOGY

- 3311 Identification of a Novel MHC Class I Gene, *Mamu-AG*, Expressed in the Placenta of a Primate with an Inactivated *G* Locus
Jonathan E. Boyson, Kristen K. Iwanaga, Thaddeus G. Golos, and David I. Watkins

- 3322 **V α 3.2 Selection in MHC Class I Mutant Mice: Evidence for an Alternate Orientation of TCR-MHC Class I Interaction**
Bee-Cheng Sim, Paul J. Travers, and Nicholas R. J. Gascoigne
- 3330 **Cooperation of Binding Sites for STAT6 and NF κ B/*rel* in the IL-4-Induced Up-Regulation of the Human IgE Germline Promoter**
Birgit Messner, Adrian M. Stütz, Bettina Albrecht, Susanna Peiritsch, and Maximilian Woisetschläger
- 3338 **TCR- δ Gene Rearrangement and Selection During Fetal Thymocyte Development**
Oliver M. Wilbert, Julia Weber-Arden, Dieter Kabelitz, and Bernhard Arden
- 3347 **In Vitro Triggering of Somatic Mutation in Human Naive B Cells**
Diane Razanajaona, Stéphane Denépoux, Dominique Blanchard, Odette de Bouteiller, Yong-Jun Liu, Jacques Banchereau, and Serge Lebecque
- 3354 **Domain-Switched Mouse IgM/IgG2b Hybrids Indicate Individual Roles for C μ 2, C μ 3, and C μ 4 Domains in the Regulation of the Interaction of IgM with Complement C1q**
Frieda H. Chen, Sudha K. Arya, Aline Rinfret, David E. Isenman, Marc J. Shulman, and Robert H. Painter
- 3364 **Phenotypic and Functional Characterization of Mice That Lack the Type I Receptor for IL-1**
Moira B. Glaccum, Kim L. Stocking, Keith Charrier, Jeffrey L. Smith, Cindy R. Willis, Charles Maliszewski, David J. Livingston, Jacques J. Peschon, and Philip J. Morrissey
- 3372 **Flexibility of Human IgG Subclasses**
Kenneth H. Roux, Lioudmila Strelets, and Terje E. Michaelsen
- 3383 **Position-Dependent Variegation of a CD4 Minigene With Targeted Expression to Mature CD4⁺ T Cells**
Olivier Boyer, Jing Chao Zhao, José L. Cohen, Danielle Depetris, Micael Yagello, Laurence Lejeune, Sylvie Bruel, Marie-Geneviève Mattéi, and David Klatzmann
- 3391 **Abbreviated Junctional Sequences Impoverish Antibody Diversity in Urodele Amphibians**
Hemal M. Patel and Ellen Hsu

HOST DEFENSE

- 3400 **Complete Protective Immunity Induced in Mice by Immunization with the 19-Kilodalton Carboxyl-Terminal Fragment of the Merozoite Surface Protein-1 (MSP1₁₉) of *Plasmodium yoelii* Expressed in *Saccharomyces cerevisiae*: Correlation of Protection with Antigen-Specific Antibody Titer, but Not with Effector CD4⁺ T Cells**
Chakrit Hirunpetcharat, Jing-Hui Tian, David C. Kaslow, Nico van Rooijen, Sanjai Kumar, Jay A. Berzofsky, Louis H. Miller, and Michael F. Good
- 3412 **Human Herpesvirus 7 Induces the Down-Regulation of CD4 Antigen in Lymphoid T Cells Without Affecting p56^{lck} Levels**
Paola Secchiero, Davide Gibellini, Louis Flamand, Iole Robuffo, Marco Marchisio, Silvano Capitani, Robert C. Gallo, and Giorgio Zauli

- 3424 Induction of Protective CTL Responses Against the *Plasmodium yoelii* Circumsporozoite Protein by Immunization with Peptides
Eileen D. Franke, Giampietro Corradin, and Stephen L. Hoffman
- 3434 Characterization of T Cell-Mediated Responses in Nonhealing and Healing *Leishmania major* Infections in the Absence of Endogenous IL-4
Pascale Kropf, Robert Etges, Lisa Schopf, Charles Chung, Joe Sypek, and Ingrid Müller
- 3444 IFN- γ Is Not Required in the IL-12 Response to Vesicular Stomatitis Virus Infection of the Olfactory Bulb
Takashi Komatsu and Carol S. Reiss
- 3453 Influenza Infection of β_2 -Microglobulin-Deficient ($\beta_2m^{-/-}$) Mice Reveals a Loss of CD4⁺ T Cell Functions with Aging
Scott F. Taylor, Robert J. Cottey, Dani S. Zander, and Bradley S. Bender
- 3460 CD28/B7 Interactions Are Required for Sustaining the Graft-Versus-Leukemia Effect of Delayed Post-Bone Marrow Transplantation Splenocyte Infusion in Murine Recipients of Myeloid or Lymphoid Leukemia Cells
Bruce R. Blazar, Patricia A. Taylor, Michael W. Boyer, Angela Panoskaltzis-Mortari, James P. Allison, and Daniel A. Vallera
- 3474 Interaction of IgA with Fc α Receptors of Human Mesangial Cells Activates Transcription Factor Nuclear Factor- κ B and Induces Expression and Synthesis of Monocyte Chemoattractant Protein-1, IL-8, and IFN-Inducible Protein 10
Natalia Duque, Carmen Gómez-Guerrero, and Jesús Egido

INFLAMMATION

- 3483 Protective Effects of IL-4, IL-10, IL-12, and IL-13 in IgG Immune Complex-Induced Lung Injury: Role of Endogenous IL-12
Michael S. Mulligan, Roscoe L. Warner, Jami L. Foreback, Thomas P. Shanley, and Peter A. Ward
- 3490 IL-12 Induces IFN- γ Expression and Secretion in Mouse Peritoneal Macrophages
Patrizia Puddu, Laura Fantuzzi, Paola Borghi, Barbara Varano, Gabriella Rainaldi, Eric Guillemard, Walter Malorni, Pascale Nicaise, Stanley F. Wolf, Filippo Belardelli, and Sandra Gessani
- 3498 Ligation of L-Selectin on T Lymphocytes Activates β_1 Integrins and Promotes Adhesion to Fibronectin
Patricia A. Gibling, Sam T. Hwang, Tamiko R. Katsumoto, and Steven D. Rosen
- 3508 TNF Initiates E-Selectin Transcription in Human Endothelial Cells Through Parallel TRAF-NF- κ B and TRAF-RAC/CDC42-JNK-c-Jun/ATF2 Pathways
Wang Min and Jordan S. Pober
- 3519 Dual Effects of LPS Antibodies on Cellular Uptake of LPS and LPS-Induced Proinflammatory Functions
Matthew Pollack, Christopher A. Ohl, Douglas T. Golenbock, Franco Di Padova, Larry M. Wahl, Nancy L. Koles, Gretchen Guelde, and Brian G. Monks

- 3531 Colchicine Down-Regulates Lipopolysaccharide-Induced Granulocyte-Macrophage Colony-Stimulating Factor Production in Murine Macrophages
Padmini Rao, Lydia A. Falk, Suanne F. Dougherty, Tomohiro Sawada, and Dov H. Pluznik
- 3540 Human Trypsin Fibrinogenolysis Is Optimal at Acidic pH and Generates Anticoagulant Fragments in the Presence of the Anti-Trypsin Monoclonal Antibody B12
Shunlin Ren, Amy E. Lawson, Marcus Carr, Clive M. Baumgarten, and Lawrence B. Schwartz
- 3549 The Role of IFN Regulatory Factor-1 in Synovitis and Nitric Oxide Production
Akihiro Shiraishi, Jean Dudler, and Martin Lotz
- 3555 α_1 -Acid Glycoprotein and α_1 -Antitrypsin Inhibit TNF-Induced but Not Anti-Fas-Induced Apoptosis of Hepatocytes in Mice
Wim Van Molle, Claude Libert, Walter Fiers, and Peter Brouckaert
- 3565 Mycobacterial and Schistosomal Antigen-Elicited Granuloma Formation in IFN- γ and IL-4 Knockout Mice: Analysis of Local and Regional Cytokine and Chemokine Networks
Stephen W. Chensue, Kelly Warmington, Jeffrey H. Ruth, Nicholas Lukacs, and Steven L. Kunkel
- 3574 Comparison of E-Selectin-Binding Glycoprotein Ligands on Human Lymphocytes, Neutrophils, and Bovine $\gamma\delta$ T Cells
Ward M. Jones, Gayle M. Watts, Martyn K. Robinson, Dietmar Vestweber, and Mark A. Jutila
- 3584 Activation of Phospholipase A₂ by Complement C5b-9 in Glomerular Epithelial Cells
Mandip Panesar, Joan Papillon, Alison J. McTavish, and Andrey V. Cybulsky
- 3595 Chemokine Networks In Vivo: Involvement of C-X-C and C-C Chemokines in Neutrophil Extravasation In Vivo in Response to TNF- α
Philippe A. Tessier, Paul H. Naccache, Ian Clark-Lewis, Ronald P. Gladue, Kuldeep S. Neote, and Shaun R. McColl

CLINICAL IMMUNOLOGY

- 3604 Constitutive Intra-Articular Expression of Human IL-1 β Following Gene Transfer to Rabbit Synovium Produces All Major Pathologies of Human Rheumatoid Arthritis
Steven C. Ghivizzani, Richard Kang, Helga I. Georgescu, Eric R. Lechman, Daniel Jaffurs, J. Michael Engle, Simon C. Watkins, Michael H. Tindal, Maureen K. Suchanek, Lorraine R. McKenzie, Christopher H. Evans, and Paul D. Robbins
- 3613 Human IgG2 Variants of Chimeric Anti-CD3 Are Nonmitogenic to T Cells
Michael S. Cole, Claudio Anasetti, and J. Yun Tso
- 3622 TGF- β Production Regulates the Development of the 2,4,6-Trinitrophenol-Conjugated Keyhole Limpet Hemocyanin-Induced Colonic Inflammation in IL-2-Deficient Mice
Björn R. Lúdvíksson, Rolf O. Ehrhardt, and Warren Strober

- 3629 **V δ 1 T Cells Expanded in the Blood Throughout HIV Infection Display a Cytotoxic Activity and Are Primed for TNF- α and IFN- γ Production but Are Not Selected in Lymph Nodes**
Séverine Boullier, Gilles Dadaglio, Alain Lafeuillade, Thierry Debord, and Marie-Lise Gougeon
- 3638 **Intranasal Immunization of a DNA Vaccine with IL-12- and Granulocyte-Macrophage Colony-Stimulating Factor (GM-CSF)-Expressing Plasmids in Liposomes Induces Strong Mucosal and Cell-Mediated Immune Responses Against HIV-1 Antigens**
Eiichi Okada, Shin Sasaki, Norihisa Ishii, Ichiro Aoki, Tatsuji Yasuda, Kusuya Nishioka, Jun Fukushima, Junichi Miyazaki, Britta Wahren, and Kenji Okuda
- 3648 **HIV-1 Reverse Transcriptase-Specific CTL Against Conserved Epitopes Do Not Protect Against Progression to AIDS**
Sjoerd H. van der Burg, Michèl R. Klein, Oscar Pontesilli, Agnes M. Holwerda, Jan-Wouter Drijfhout, W. Martin Kast, Frank Miedema, and Cornelis J. M. Melief
- 3655 **HLA-Cw3 Expression on Porcine Endothelial Cells Protects Against Xenogeneic Cytotoxicity Mediated by a Subset of Human NK Cells**
Jörg D. Seebach, Christopher Comrack, Sharon Germana, Christian LeGuern, David H. Sachs, and Harout DerSimonian
- 3662 **Autoantibodies to IA-2 and IA-2 β in Insulin-Dependent Diabetes Mellitus Recognize Conformational Epitopes: Location of the 37- and 40-kDa Fragments Determined**
Hong Xie, Baowei Zhang, Yasunobu Matsumoto, Qing Li, Abner L. Notkins, and Michael S. Lan
- 3668 **Author Index**