

CURRICULUM VITAE



Name: (M.R.) Jisnuson SVASTI
Born: 25 September 1947; Bangkok, Thailand.
Marital Status: Married (8/8/68) to (M.R.) Phromchatra
Daughters: Sasibha (17/4/75), Chandrabha (20/5/78)

Positions:

1990-present Head, Laboratory of Biochemistry, Chulabhorn Research Institute, Don Muang, Bangkok 10210, Thailand
2012-present Emeritus Professor of Biochemistry, Mahidol University, Rama VI Road, Bangkok 10400, Thailand.

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Education: Educated in England (1954-1972)

1957-1960 Cheam School, Headley, Nr. Newbury, Berkshire.
1960-1965 Rugby School, Rugby, Warwickshire.
1965-1972 Trinity College, Cambridge University.

Degrees:

1968 B.A.(Hons) Natural Sciences (Biochemistry), Cambridge University, United Kingdom.
1972 M.A., Natural Sciences, Cambridge University, U.K.
1972 Ph.D, MRC Laboratory of Molecular Biology, Cambridge University, U.K. *Thesis title:* Sequence Studies on Mouse Immunoglobulins
Supervisor: Dr. Cesar Milstein, F.R.S. (Nobel laureate)

Previous Experience:

1972-1975 Lecturer, Department of Biochemistry, Faculty of Science, Mahidol University.
1975-1978 Assistant Professor, Department of Biochemistry, Faculty of Science, Mahidol University.

1976-1977	Senior Research Associate, Department of Human Biological Chemistry and Genetics, University of Texas Medical Branch, Galveston, Texas 77550, U.S.A.
1979-1982	Associate Professor, Department of Biochemistry, Faculty of Science, Mahidol University
1982-2012	Professor of Biochemistry, Mahidol University, Rama VI Road, Bangkok 10400, Thailand.
1980-1984	Chairman, Department of Biochemistry, Faculty of Science, Mahidol University
1996-1997	Associate Dean, Faculty of Science, Mahidol University
1997-1999	Vice-President for International Relations, Mahidol University
2001-2012	Head, Center for Excellence in Protein Structure and Function, Faculty of Science, Mahidol University, Bangkok 10400, Thailand
2005-2007	Dean, Faculty of Graduate Studies, Mahidol University

Research Activities

General interests: Protein structure and function, enzymology.

Past experience: Plasma proteins; Proteins unique to the male reproductive system; Abnormal hemoglobins.

Present interests: Inborn errors of metabolism; Protein changes in cancer; anti-cancer agents from natural products; Glycosidase enzymes and glycosides.

Professional Societies

1972-present	Member, Science Society of Thailand
1981-present	Member, Biochemical Society, U.K.
1986-present	Member, Physics Society, Thailand
1991-present	Member, Chemical Society, Thailand
1992-present	Member, Thai Biotechnology Society
1995-2005	Member, Japanese Society for Bioscience, Biotechnology & Agrochemistry
1997-present	Member, Protein Society, U.S.A.
2001-present	Member, Society for Glycobiology, U.S.A.

International Activities

1979-1981	Coordinating Committee, Asian Network of Biological Science
1980-1986	Treasurer, Federation of Asian & Oceanian Biochemists
1989-1990	President-Elect, Federation of Asian and Oceanian Biochemists
1990-1992	President, Federation of Asian and Oceanian Biochemists (FAOB)
1993-1994	Past President, Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB)

1994	Chairman, Organising Committee, Eleventh FAOBMB Symposium on <i>Biopolymers and Bioproducts: structure, function and applications</i> , Bangkok, 15-18 November 1994
1996-2002	Member, Committee on Symposia, International Union of Biochemistry and Molecular Biology (IUBMB)
1996-2009	Thai Delegate to International Union of Biochemistry and Molecular Biology
1998-present	Governing Council, Asia-Pacific International Molecular Biology Network (A-IMBN)
2001-2005	Membership Committee for Biochemistry and Biophysics, The Academy of Sciences for the Developing World (TWAS)
2003-present	Editorial Board, <i>Molecules and Cells</i> , Korean Society of Molecular and Cellular Biology
2003-2009	Member, Health Committee, EAGLES (European Action on Global Life Sciences)
2004-present	Council Member, Asian and Oceanic Human Proteome Organization
2008-2012	Treasurer, Federation of Asian Scientific Academies and Societies (FASAS)
2008-2011	Management Board, Science Council of Asia (SCA)
2010-present	Steering Committee, Asian-Pacific Protein Association (APPA)
2011-present	Member, Evaluation Committee, TWAS Biology Prize

Local Activities

1974-84, 1992-93	Editorial Board, Journal of the Science Society of Thailand
1985-1987	Editor-in-Chief, Journal of the Science Society of Thailand
1985-87, 2000-12	Member, Executive Committee, Science Society of Thailand under the Patronage of His Majesty the King
1994-1998	Executive Committee, Journal of the Science Society of Thailand
1986-1987	Chairman, Biochemical Section, Science Society of Thailand
1988-present	Advisory Board, Biochemical Section, Science Society of Thailand
1991-1998	Committee Member, National Research Council of Thailand (Agriculture & Biology Section)
1982-1991	Board of Directors, Chumbot-Pantip Foundation
1984-present	Board of Directors, Prajadhipok-Rambhai Barni Foundation; Deputy Chairman since 2011
1985-present	Board of Directors, Memorial Foundation for H.M. King Rama VII-Queen Rambhai Barni
1990-present	Board of Trustees, Cambridge-Thai Foundation
2001-2008	Editor-in-Chief, <i>ScienceAsia</i> , Journal of the Science Society of Thailand

2002-present	Committee Member, National Research Council of Thailand (Chemical Sciences & Pharmacy Section)
2002-present	Honorary Jury, UNESCO-L'Oreal Women in Science Program, Thailand
2004-present	Co-founder and President, Protein Society of Thailand
2004-present	University Council, Huachiew Chalermphrakiet University, Bangkok
2005-2007	University Council, Mahidol University, Bangkok
2008-2011	President, Science Society of Thailand under the Patronage of His Majesty the King
2008-2011	Board of Directors, National Science Museum, Thailand
2008-present	Committee, The Promotion of Academic Olympiads and Development of Science Education Foundation (POSN) under the Patronage of H.R.H. Princess Galyani Vadhana Krom Luang Naradhiwas Rajanagarindra
2008-present	Board of Directors, Synchrotron Light Research Institute, Thailand
2009-present	Founding Chairman, Marsi Foundation
2009-present	University Council, Christian University, Thailand
2009-2012	Committee Member, Council for the Science and Technology Profession
2011-present	Committee Member, Mom Chao Vudhividhu Foundation
2012-present	Chairman, Education Committee, Thai Toray Science Foundation

Fellowships

1968-1971	Coutts-Trotter Research Studentship, Trinity College, Cambridge
1972	Travel Fellowship, First International Symposium on Immunology, Gausdal, Norway
1974	Travel Fellowship, Third International Conference on Isozymes, New Haven, U.S.A.
1976	IUB Travel Fellowship, 10 th International Congress of Biochemistry, Hamburg, Germany

Local Awards, Honours and Decorations

1982	Mahidol University Prize for Excellence in Research: "Chromatin Structure and Nucleic Basic Proteins in Mammalian Male Germ Cells" (with Nongnuj Tanphaichitr and Prasert Sobhon)
1997	Founding Member, Thailand Academy of Science and Technology (TAST)
1998	Outstanding Researcher Award, Ministry of University Affairs
2001	Senior Research Fellow, Thailand Research Fund
2002	Outstanding Scientist of Thailand Award, Foundation for the Promotion of Science and Technology under the Patronage of His Majesty the King
2003	Outstanding Researcher, Chemical Sciences and Pharmacy section, National Research Council of Thailand

2003	Outstanding Lecturer, Faculty Club, Faculty of Science, Mahidol University
2004	Exemplary Lecturer, Faculty Club, Mahidol University
2005	Outstanding Lecturer Award from the Council of the University Faculty Senates of Thailand
2009	Sood Sangvichien Lecture and Gold Medal Award
2010	Mahidol University International Publications Award, 2007

International Honours

1994	Honorary Member, Federation of Asian and Oceanian Biochemists and Molecular Biologists, Inc. (FAOBMB)
1995	Honorary Member, Philippine Society of Biochemistry and Molecular Biology
1996	Elected Fellow, Academy of Sciences for the Developing World (TWAS)
1998	Member, Asia-Pacific International Molecular Biology Network
2012	A-IMBN Distinguished Lecture at the 14th Asia-Pacific International Molecular Biology Network Conference

Royal Decorations

1987	Knight Grand Cross of the Most Noble Order of the Crown of Thailand
1990	Knight Grand Cross of the Most Exalted Order of the White Elephant
1993	Knight Grand Cordon (special class) of the Most Noble Order of the Crown of Thailand
1998	Knight Grand Cordon (special class) the Most Exalted Order of the White Elephant
2005	Dushdi Mala Medal

Summary of Publications

139	Research Articles in International Journals
28	Academic Articles (e.g. science education & editorials) in International Journals
33	Articles in Proceedings of International Conferences
13	Articles in Thai or Thai Journals
5	Textbooks & Manuals (co-authored)

Selected Publications

A. Research Articles in International Journals

1. Svasti, J. and Milstein, C. (1970) Variability of Interchain Binding of Immunoglobulins: interchain bridges of mouse IgG1. *Nature (Lond.)* **228**, 933-935.
2. Svasti, J. and Milstein, C. (1972) The Disulphide Bridges of a Mouse Immunoglobulin G1 Protein. *Biochem. J.* **126**, 837-850.

3. Svasti, J. and Milstein, C. (1972) The Complete Amino Acid Sequence of a Mouse Kappa Light Chain. *Biochem. J.* **128**, 427-444.
4. Svasti, J. and Milstein, C. (1972) The Parallel Nature of the Interchain Disulphide Bonds of Immunoglobulins: studies on a mouse IgG1 myeloma protein. *Europ. J. Biochem.* **31**, 405-422.
5. Adetugbo, K., Poskus, E., Svasti, J., and Milstein, C. (1975) Mouse Immunoglobulin Subclasses: cyanogen bromide fragments and partial sequence of a gamma 1 chain. *Europ. J. Biochem.* **56**, 503-519.
6. Svasti, M.R. J. and Viriyachai, S. (1975) The Purification of Lactate Dehydrogenase Isozymes LDH-A₄, LDH-B₄ and LDH-C₄ from Human Tissues. *J. Sci. Soc. Thailand* **1**, 57-71.
7. Pongsawasdi, P. and Svasti, J. (1976) The Heterogeneity of the Protamines from Human Spermatozoa. *Biochim. Biophys. Acta* **434**, 462- 473.
8. Svasti, M.R. J., Prawatmuang, P., Vajanamarhutue, C., Kadjaphai, A., Wangthammang, S. and Talupphet, N. (1976) The Presence of Two IgG Subclasses in Waterbuffalo Immunoglobulins. *J. Sci. Soc. Thailand* **2**, 56-66.
9. Svasti, J. (1977) An Addition at the C-terminus of Water-Buffalo Immunoglobulin Lambda Chains. *Biochem. J.* **161**, 185-187.
10. Svasti, J. and Bowman, B.H. (1978) Human Group-Specific Component: changes in electrophoretic mobility resulting from vitamin D-binding and from neuraminidase digestion. *J. Biol. Chem.* **252**, 4188-4194.
11. Svasti, J. and Talupphet, N. (1979) Improvement in the Resolution of Human Sperm Protamines by Use of Iodoacetamide as Labelling Agent. *Biochim. Biophys. Acta* **577**, 221-225.
12. Svasti, J., Kurosky, A., Bennett, A. and Bowman, B.H. (1979) Molecular Basis for the Three Major Forms of Human Serum Vitamin D Binding Protein (Group-Specific Component). *Biochemistry* **18**, 1161- 1167.
13. Toowicharanont P. and Svasti, J. (1980) A Logical Approach to the Isolation of Lactate Dehydrogenase Isozyme X from Human Testes: a general rationale for the isolation of homotetrameric LDH isozymes. *Experientia* **36**, 37-38.
14. Surarit, R. and Svasti, J. (1980) Effect of Ligand Binding on the Conformation of Human Plasma Vitamin D Binding Protein (Group-Specific Component). *Biochem. J.* **191**, 404-410.
15. Surinrat, P., Svasti, J. and Surarit, R. (1981) Improved Purification and Fluorescence Changes upon Activation of Human Seminal Plasma Acidic Protease. *Biochim. Biophys. Acta* **659**, 38-47.
16. Anguravirutt, S. and Svasti, J. (1981) A New Procedure for the Purification of Rat Testis-Specific Histone TH2B Involving Affinity Related Chromatography. *Arch. Biochem. Biophys.* **210**, 412-416.
17. Wattanaseree, J. and Svasti, J. (1983) Human Testis-Specific Histone TH2B: Fractionation and Peptide Mapping. *Arch. Biochem. Biophys.* **225**, 892-897.

18. Wattanaseree, J., Svasti, J., Bubpaniroj, P. and Mitranond, V. (1984) Effect of Vitamin A Deficiency on the Testis-Specific Basic Proteins of the Rat. *J. Biochem. (Tokyo)* **95**, 179-186.
19. Reid, W.A., Vongsorasak, L., Svasti, J., Valler, M.J. and Kay, J. (1984) Identification of the Acid Proteinase in Human Seminal Fluid as a Gastricsin Originating in the Prostate. *Cell Tiss. Res.* **236**, 597- 600.
20. Yongvanich, T. and Svasti, J. (1984) Structural Differences between Somatic H2B and Testis- Specific TH2B Histones of the Rat. *Experientia* **40**, 845-846.
21. Tanphaichitr, J., Svasti, J. and Sobhon, P. (1984) Molecular Mechanism of the Antifertility Effects of Gossypol: a review. *J. Sci. Soc. Thailand* **10**, 197-206.
22. Reid, W.A., Liddle, C.N., Svasti, J. and Kay, J. (1985) Gastricsin in the Benign and Malignant Prostate. *J. Clin. Pathol.* **38**, 639-643.
23. Vongsorasak, L. and Svasti, J. (1985) Inhibition of Liquefaction and Protein Degradation of Human Semen by Gossypol. *Int. J. Androl.* **8**, 472-486.
24. Vongsorasak, L. and Svasti, J. (1986) Gossypol Prevents Activation of Purified Proenzyme of Human Seminal Plasma Acidic Proteinase. *Biochim. Biophys. Acta.* **883**, 271-276.
25. Boontrakulpoontawee, P., Svasti, J., Fucharoen, S. and Winichagoon, P. (1987) Identification of Hb Lepore-Washington-Boston in Association with HbE in a Thai Female. *Hemoglobin* **11**, 309- 316.
26. Yongsuwan, S., Svasti, J. and Fucharoen, S. (1987) Decreased Heat Stability Found in Hemoglobin Queens. *Hemoglobin* **11**, 567-570.
27. Svasti, J., Surarit, R., Srisomsap, C., Pravatmuang, P., Wasi, P., Fucharoen, S., Blouquit, Y., Galacteros, F., and Rosa, J. (1993) Identification of Hb Anantharaj [α 11(A9)Lys→Glu] as Hb J- Wenchang-Wuming [α 11(A9)Lys→Gln]. *Hemoglobin* **17**, 453-455.
28. Siriboon, W., Srisomsap, C., Winichagoon, P. Fucharoen, S., and Svasti, J. (1993) Identification of Hb C [β 6(A3)Glu→Lys] in a Thai Male. *Hemoglobin* **17**, 419-426.
29. Svasti, J., Boontrakulpoontawee, P., Yongsuwan, S., Sarikaputi, M., Siriboon, W., Srisomsap, C., Fucharoen, S., Winichagoon, P., Pravatmuang, P., and Surarit, R. (1994) Structural Analysis of Proteins in Thailand: Identification of abnormal hemoglobins. *Pure & Appl. Chem.* **66**, 105-110.
30. Suginta W. and Svasti, M.R.J. (1995) Purification and Properties of β -Galactosidase from *Hibiscus sabdariffa* L. var. altissima. *J. Sci. Soc. Thailand.* **21**, 183-186.
31. Sermuvityawong, K., Svasti, M.R.J., Sawangareetrakul, P., Kisamanonta, P. and Chulavatnatol, M. (1995) Aggregation of Cassava Linamarase. *J. Sci. Soc. Thailand.* **21**, 283-292.
32. Surarit, R., Svasti, M.R.J., Srisomsap, C., Suginta, W., Khunyoshyeng, S., Nilwarangkoon, S., Harnsakul, P., and Benjavongkulchai, E. (1995) Screening of Glycohydrolase Enzymes in Thai Plant Seeds for Potential Use in Oligosaccharide Synthesis. *J. Sci. Soc. Thailand.* **21**, 293-303.

33. Srisomsap, C., Svasti, J., Surarit, R., Champattanachai, V., Boonpuan, K., Sawangareetrakul, P., Subhasitanont, P. and Chokchaichamnankit, D. (1996) Isolation and Characterization of an Enzyme with β -D-Glucosidase/ β -D-Fucosidase Activities from *Dalbergia cochinchinensis* Pierre. *J. Biochem.* **119**, 585-590.
34. Benjavongkulchai, E., Surarit, R., Bucke, C. and Svasti, J. (1996) Synthesis of Oligosaccharides by Dextranucrase from a Local Strain of *Streptococcus mutans*. *J. Sci. Soc. Thailand* **22**, 105-110.
35. Surarit, R., Matsui, H., Chiba, S., Svasti, J. and Srisomsap, C. (1996) Chemical Modification of β -Glucosidase/ β -Fucosidase from *Dalbergia cochinchinensis* Pierre by Conduritol B Epoxide. *Biosci. Biotech. Biochem.* **60**, 1265-1268.
36. Surarit, R., Matsui, H., Chiba, S., Svasti, J. and Srisomsap, C. (1997) Evidence for the Presence of a Single Active Site in β -D-Fucosidase/ β -D-Glucosidase from *Dalbergia cochinchinensis* Seeds. *Biosci. Biotech. Biochem.* **61**, 93-95.
37. Wongwithoonyaporn, P., Bucke, C., and Svasti, J. (1998) Separation and Specificity Study of α -Mannosidases from *Vigna umbellata*. *Biosci. Biotech. Biochem.* **62**, 613-621.
38. Itchayanan, D., Svasti, J., Srisomsap, C., Winichagoon, P., and Fucharoen, S. (1999) Hb G-Coushatta [β 22(B4)Glu $\rightarrow$ Ala] in Thailand. *Hemoglobin* **23**, 69-72.
39. Svasti, J., Srisomsap, C., Techasakul, S. and Surarit, R. (1999) Dalcochinin-8'-O- β -D-Glucoside and its β -Glucosidase Enzyme from *Dalbergia cochinchinensis*. *Phytochem.* **50**, 739-743.
40. Itchayanan, D., Svasti, J., Srisomsap, C., Winichagoon, P., and Fucharoen, S. (1999) Identification of Hb J Buda [α 61(E10)Lys $\rightarrow$ Asn] in a Thai Female. *Hemoglobin* **23**, 183-186.
41. Srisomsap, C., Subhasitanont, C., Techasakul, S., Surarit, R., and Svasti, J. (1999) Synthesis of Homo and Hetero-Oligosaccharides by Thai Rosewood β -Glucosidase. *Biotechnol. Letts.* **21**, 947-951.
42. Svasti, J., Srisomsap, C., Itchayan, D., Limwuttiwong, A., Siriboon, W., Winichagoon, P. and Fucharoen, S. (1999) Recent Studies on the Abnormal Hemoglobins Found in Thailand. *J. Chem. Soc. Pak.* **21**, 281-288.
43. Yodsowan, B., Svasti, J., Srisomsap, C., Winichagoon, P., and Fucharoen, S. (2000) Hb Siam [α 15(A13)Gly $\rightarrow$ Arg] is a GGT $\rightarrow$ CGT Mutation in the α 1-Gene. *Hemoglobin* **24**, 71-74.
44. Lirdprapamongkol, K. and Svasti, J. (2000) Alkyl Glucoside Synthesis using Thai Rosewood β -Glucosidase. *Biotechnology Letters.* **22**, 1889-1994
45. Cairns, J.R.K., Champattanachai, V., Srisomsap, C., Wittman-Liebold, B., Thiede, B., and Svasti, J. (2000) Sequence and recombinant expression of Thai Rosewood β -glucosidase/ β -fucosidase, a glycosylated family 1 glycosyl hydrolase. *J. Biochem.* **128**, 999–1008.
46. Imai, K., Tientadakul, P., Opartkiattikul, N., Luene, P., Winichagoon, P., Svasti, J. and Fucharoen, S. (2001) Detection of Haemoglobin Variants and Inference of Their Functional Properties by Complete Oxygen Dissociation Curve Measurements. *Brit. J. Haematol.* **112**, 483-7.

47. Svasti, S., Yodsowon, B., Sriphanich, R., Winichagoon, P., Boonkhan, P., Suwanban, T., Sawangareetrakul, P., Srisomsap, C., Ketudat-Cairns, J.R., Svasti, J. and Fucharoen, S. (2001) Association of Hb Hope [β 136(H14)Gly→Asp] and Hb H Disease. *Hemoglobin* **25**, 429-435.
48. Svasti, J., Srisomsap, C., Wasant, P., Pangkanon, S., Tiensuwan, M., Boonpuan, K., Sawangareetrakul, P. and Liammongkolkul, S. (2001) Normal Plasma Free Amino Acid Levels in Thai Children. *J. Med. Assoc. Thailand*. **84**, 1558-1568.
49. Arthan, D., Svasti, J., Kittakoo, P., Pittayakhachonwut, D., Tanticharoen, M., and Thebtaranonth, Y. (2002) Antiviral isoflavonoid sulfate and steroidal glycosides from the fruits of *Solanum torvum*. *Phytochemistry* **59**, 459-463.
50. Turbpaiboon, C., Svasti, S., Sawangareetrakul, P., Winichagoon, P., Srisomsap, C., Siritanaratkul, N., Wilairat, P., and Svasti, J. (2002) Hb Siam [α 1-15(A13)Gly(GGT)→Arg(CGT)] is a typical alpha hemoglobinopathy without alpha thalassemic effect. *Hemoglobin* **26**, 77-81.
51. Sawangareetrakul, P., Svasti, S., Yodsowon, B., Winichagoon, P., Srisomsap, C., Svasti, J., and Fucharoen, S. (2002) Double Heterozygosity for Hb Pyrgos [β 83(EF7)Gly→Asp] and Hb E [β 26(B8)Glu→Lys] Found in Association with α -Thalassemia. *Hemoglobin* **26**, 191-196.
52. Srisomsap, C., Subhasitanont, P., Otto, A., Mueller, E.-C., Punyarit, P. Wittmann-Liebold, B. and Svasti, J. (2002) Detection of Cathepsin B Up-Regulation in Neoplastic Thyroid Tissues by Proteomic Analysis. *Proteomics* **2**, 706-712.
53. Ngiswara, L., Srisomsap, C., Winichagoon, P., Fucharoen, S. and Svasti, J. (2003) Hb Kodaira II [β 146(HC3)His→Gln] Detected In Thailand. *Hemoglobin* **27**, 37-39.
54. Lirdprapamongkol, K., Mahidol, C., Thongnest, S., Prawat, H., Ruchirawat, S., Srisomsap, C., Surarit, R., Punyarit, P., and Svasti, J. (2003) Anti-metastatic Effects of Aqueous Extract of *Helixanthera parasitica*. *J. Ethnopharmacol.* **86**, 253-256.
55. Svasti, J., Phongsak, T., Sarnthima, R. (2003) Transglucosylation of Tertiary Alcohols using Cassava β -Glucosidase. *Biochem. Biophys. Res. Commun.* **305**, 470-475.
56. Champattanachai, V., Cairns, J.R.K., Shotelersuk, V., Keeratichamroen, S., Sawangareetrakul, P., Srisomsap, C., Kaewpaluek, V. and Svasti, J. (2003) Novel mutations in a Thai patient with methylmalonic acidemia. *Molec. Genet. Metab.* **79**, 300-302.
57. Opassiri, R., Cairns, J.R.K., Akiyama, T., Wara-Aswapati, O., Svasti, J. and Esen, E. (2003) Characterization of a rice β -glucosidase highly expressed in flower and germinating shoot. *Plant Science* **165**, 627-638.
58. Srisomsap, C., Sawangareetrakul, P., Subhasitanont, P., Panichakul, T., Keeratichamroen, S., Lirdprapamongkol, K., Chokchaichamnankit, D., Sirisinha, S. and Svasti, J. (2004) Proteomic Analysis of Cholangiocarcinoma Cell Line. *Proteomics* **4**, 1135-1144.
59. Ngiswara, L., Srisomsap, C., Winichagoon, P., Fucharoen, S. and Svasti, J. (2004) Two Cases of Compound Heterozygosity for Hemoglobin Hekinan [α (27); Glu-Asp] and α -Thalassemia in Thailand. *Hemoglobin* **28**, 145-150.

60. Opassiri, R., Hua, Y., Wara-Aswapati, O., Akiyama, T., Svasti, J., Esen, A. and Ketudat Cairns, J.R. (2004) β -Glucosidase, exo- β -glucanase and pyridoxine transglucosylase activities of rice BGlu1. *Biochem. J.* **379**, 125-131.
61. Chaiyen, P., Sucharitakul, J., Svasti, J., Entsch, B., Massey, V. and Ballou, D.P. (2004) Use of 8-Substituted-FAD Analogs to Investigate the Hydroxylation Mechanism of the Flavoprotein 2-Methyl-3-hydroxypyridine-5-carboxylic Acid Oxygenase. *Biochemistry* **43**, 3933-3943.
62. Suginta, W., Songsiriritthigul, C., Prinz, H., Estibeiro, P., Duncan, R.R., Svasti, J. and Fothergill-Gilmore, L.A. (2004) An endochitinase A from *Vibrio carchariae*: cloning, expression, mass and sequence analyses, and chitin hydrolysis. *Arch. Biochem. Biophys.* **424**, 171-180.
63. Kubota, M., Tsuji, M., Nishimoto, M., Wongchawalit, J., Okuyama, M., Mori, H., Matsui, M., Surarit, R., Svasti, J., Kimura, A. and Chiba, A. (2004) Localization of α -Glucosidases in Organs of European Honeybees, *Apis mellifera* L., and the Origin of α -Glucosidase in Honey. *Biosci. Biotechnol. Biochem.* **68**, 2346-2352.
64. Ngiwsara, L., Srisomsap, C., Winichagoon, P., Fucharoen, S., Sae-Ngow, B., and Svasti, J. (2005) Hb Kurosaki [α 7(A5)Lys-Glu (Aag-Gag)]: an α 2-Globin Gene Mutation Found In Thailand. *Hemoglobin* **29**(2):155-9.
65. Lirdprapamongkol, K., Sakurai, H., Kawasaki, N., Choo, M.-K., Saitoh, Y., Aozuka, Y., Singhirunnusorn, P., Ruchirawat, S., Svasti, J. and Saiki, I. (2005) Vanillin Suppresses *In vitro* Invasion and *In vivo* Metastasis of Mouse Breast Cancer Cells. *Eur. J. Pharm. Sci.* **25**, 57-65.
66. Wasant, P., Vatanavichien, N., Srisomsap, C., Sawangareetrakul, P., Liammongkolkul, S. and Svasti, J. (2005) Retrospective Study of Patients with Suspected Inborn Errors of Metabolism at Siriraj Hospital, Bangkok, Thailand (1997-2001) *J. Med. Assoc. Thai* **88**, 746-753.
67. Suginta, W., Vongsuwan, A., Songsiriritthigul, C., Svasti, J., and Prinz, H. (2005) Enzymatic Properties of Chitinase A from *Vibrio carchariae* and the Active Site Mutants as Revealed by HPLC-Mass Spectrometry. *FEBS Journal* **272**, 3376-3386.
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