

References for Product 130

1. Baker LM, Poole LB. (2003) Catalytic mechanism of thiol peroxidase from *Escherichia coli*. Sulfenic acid formation and overoxidation of essential CYS61. *J Biol Chem*, 278, 9203.
2. Belogradov GI. (2006) Bovine factor B: cloning, expression, and characterization. *Arch Biochem Biophys*, 451, 68.
3. Besancon M, Shin JM, Mercier F, Munson K, Rabon E, Hersey S, Sachs G. (1992) Chemomechanical coupling in the gastric H,K ATPase. *Acta Physiol Scand Suppl*, 607, 77.
4. Bigelow DJ, Inesi G. (1991) Frequency-domain fluorescence spectroscopy resolves the location of maleimide-directed spectroscopic probes within the tertiary structure of the Ca-ATPase of sarcoplasmic reticulum. *Biochemistry*, 30, 2113.
5. Bigelow DJ, Squier TC, Inesi G. (1992) Phosphorylation-dependent changes in the spatial relationship between Ca-ATPase polypeptide chains in sarcoplasmic reticulum membranes. *J Biol Chem*, 267, 6952.
6. Birge RB, Bartolone JB, Cohen SD, Khairallah EA, Smolin LA. (1991) A comparison of proteins S-thiolated by glutathione to those arylated by acetaminophen. *Biochem Pharmacol*, 42 Suppl, S197.
7. Borovikov YS, Khoroshev MI, Chacko S. (1996) Comparison of the effects of calponin and a 38-kDa caldesmon fragment on formation of the "strong-binding" state in ghost muscle fibers. *Biochem Biophys Res Commun*, 223, 240.
8. Bullok KE, Dyszlewski M, Prior JL, Pica CM, Sharma V, Piwnica-Worms D. (2002) Characterization of novel histidine-tagged Tat-peptide complexes dual-labeled with (99m)Tc-tricarbonyl and fluorescein for scintigraphy and fluorescence microscopy. *Bioconjug Chem*, 13, 1226.
9. Bures EJ, Hui JO, Young Y, Chow DT, Katta V, Rohde MF, Zeni L, Rosenfeld RD, Stark KL, Haniu M. (1998) Determination of disulfide structure in agouti-related protein (AGRP) by stepwise reduction and alkylation. *Biochemistry*, 37, 12172.
10. Chan PH, Chan KC, Liu HB, Chung WH, Leung YC, Wong KY. (2005) Fluorescein-labeled beta-lactamase mutant for high-throughput screening of bacterial beta-lactamases against beta-lactam antibiotics. *Anal Chem*, 77, 5268.
11. Chapman-Smith A, Forbes BE, Wallace JC, Cronan JE, Jr. (1997) Covalent modification of an exposed surface turn alters the global conformation of the biotin carrier domain of *Escherichia coli* acetyl-CoA carboxylase. *J Biol Chem*, 272, 26017.
12. Chassaing C, Gonin J, Wilcox CS, Wainer IW. (1999) Determination of reduced and oxidized homocysteine and related thiols in plasma by thiol-specific pre-column derivatization and capillary electrophoresis with laser-induced fluorescence detection. *J Chromatogr B Biomed Sci Appl*, 735, 219.
13. Checover S, Nachliel E, Dencher NA, Gutman M. (1997) Mechanism of proton entry into the cytoplasmic section of the proton-conducting channel of bacteriorhodopsin. *Biochemistry*, 36, 13919.
14. Cheng YJ, Liang JX, Li QG. (2005) [Construction of RNA-containing virus-like nanoparticles expression vector with cysteine residues on surface and fluorescent decoration]. *Yi Chuan Xue Bao*, 32, 874.
15. Curtis SK, Cowden RR. (1980) Demonstration of sulfhydryl and disulfide groups by a fluorescent maleimide procedure. *Histochemistry*, 68, 23.
16. Dempki RE, Hartung K, Friedrich T, Bamberg E. (2006) Fluorometric measurements of intermolecular distances between the alpha and beta subunits of the Na⁺/K⁺-ATPase. *J Biol Chem*.
17. Drees BL, Rye HS, Glazer AN, Nelson HC. (1996) Environment-sensitive labels in multiplex fluorescence analyses of protein-DNA complexes. *J Biol Chem*, 271, 32168.
18. Dudas KC, Ruyechan WT. (1998) Identification of a region of the herpes simplex virus single-stranded DNA-binding protein involved in cooperative binding. *J Virol*, 72, 257.

19. Dudas KC, Scouten SK, Ruyechan WT. (2001) Conformational change in the herpes simplex single-strand binding protein induced by DNA. *Biochem Biophys Res Commun*, 288, 184.
20. Duffy EJ, Parker ET, Mutucumarana VP, Johnson AE, Lollar P. (1992) Binding of factor VIIIa and factor VIII to factor IXa on phospholipid vesicles. *J Biol Chem*, 267, 17006.
21. Dunlop J, Jones PC, Finbow ME. (1995) Membrane insertion and assembly of ductin: a polytopic channel with dual orientations. *Embo J*, 14, 3609.
22. Duszynski J, Dupuis A, Lux B, Vignais PV. (1988) Spectral properties of fluorescent derivatives of the oligomycin sensitivity conferring protein and analysis of their interaction with the F1 and F0 sectors of the mitochondrial ATPase complex. *Biochemistry*, 27, 6288.
23. Elliott JT, Tona A, Plant AL. (2003) Comparison of reagents for shape analysis of fixed cells by automated fluorescence microscopy. *Cytometry A*, 52, 90.
24. Emerson D, Ghiorse WC. (1993) Role of disulfide bonds in maintaining the structural integrity of the sheath of *Leptothrix discophora* SP-6. *J Bacteriol*, 175, 7819.
25. Epps DE, Taylor BM. (2001) A competitive fluorescence assay to measure the reactivity of compounds. *Anal Biochem*, 295, 101.
26. Gangal M, Cox S, Lew J, Clifford T, Garrod SM, Aschbaher M, Taylor SS, Johnson DA. (1998) Backbone flexibility of five sites on the catalytic subunit of cAMP-dependent protein kinase in the open and closed conformations. *Biochemistry*, 37, 13728.
27. Ghanouni P, Steenhuis JJ, Farrens DL, Kobilka BK. (2001) Agonist-induced conformational changes in the G-protein-coupling domain of the beta 2 adrenergic receptor. *Proc Natl Acad Sci U S A*, 98, 5997.
28. Ghanouni P, Gryczynski Z, Steenhuis JJ, Lee TW, Farrens DL, Lakowicz JR, Kobilka BK. (2001) Functionally different agonists induce distinct conformations in the G protein coupling domain of the beta 2 adrenergic receptor. *J Biol Chem*, 276, 24433.
29. Griep MA, McHenry CS. (1990) Dissociation of the DNA polymerase III holoenzyme beta 2 subunits is accompanied by conformational change at distal cysteines 333. *J Biol Chem*, 265, 20356.
30. Griep MA, Mesman TN. (1995) Fluorescent labeling of cysteine 39 on *Escherichia coli* primase places the dye near an active site. *Bioconj Chem*, 6, 673.
31. Guevara J, Jr., Spurlino J, Jan AY, Yang CY, Tulinsky A, Prasad BV, Gaubatz JW, Morrisett JD. (1993) Proposed mechanisms for binding of apo[a] kringle type 9 to apo B-100 in human lipoprotein[a]. *Biophys J*, 64, 686.
32. Hu L, Colman RF. (1997) Resonance energy transfer between sites in rat liver glutathione S-transferase, 1-1, selectively modified at cysteine-17 and cysteine-111. *Biochemistry*, 36, 1635.
33. Hu LA, King SC. (1999) Identification of the amine-polyamine-choline transporter superfamily 'consensus amphipathic region' as the target for inactivation of the *Escherichia coli* GABA transporter GabP by thiol modification reagents. Role of Cys-300 in restoring thiol sensitivity to Gabp lacking Cys. *Biochem J*, 339 (Pt 3), 649.
34. Hunke S, Schneider E. (1999) A Cys-less variant of the bacterial ATP binding cassette protein MalK is functional in maltose transport and regulation. *FEBS Lett*, 448, 131.
35. Jai EA, Horowitz PM. (1999) Nucleotide and Mg²⁺ induced conformational changes in GroEL can be detected by sulfhydryl labeling. *J Protein Chem*, 18, 387.
36. Jones PC, Harrison MA, Kim YI, Finbow ME, Findlay JB. (1995) The first putative transmembrane helix of the 16 kDa proteolipid lines a pore in the Vo sector of the vacuolar H(+)-ATPase. *Biochem J*, 312 (Pt 3), 739.
37. Jones PC, Sivaprasadarao A, Wray D, Findlay JB. (1996) A method for determining transmembrane protein structure. *Mol Membr Biol*, 13, 53.
38. Khoroshev MI, Borovikov Iu S, Avrova SV, Horiuchi KY, Kirillina VP, Chacko S. (1996) [The effect of a caldesmon fragment with a mol. weight of 38 kDa and calponin on the capacity of actin to form a "strong" form of binding with myosin heads]. *Tsitologiya*, 38, 346.

39. Knauf PA, Law FY, Leung TW, Atherton SJ. (2004) Relocation of the disulfonic stilbene sites of AE1 (band 3) on the basis of fluorescence energy transfer measurements. *Biochemistry*, 43, 11917.
40. Knauf PA, Pal P. (2004) Use of luminescence resonance energy transfer to measure distances in the AE1 anion exchange protein dimer. *Blood Cells Mol Dis*, 32, 360.
41. Kogi O, Fukushima A, Ishizaka S, Kitamura N. (2002) Fluorescence dynamic anisotropy of spinach calmodulin labeled by a fluorescein chromophore at Cys-26. *Anal Sci*, 18, 689.
42. Konno K, Morales MF. (1985) Exposure of actin thiols by the removal of tightly held calcium ions. *Proc Natl Acad Sci U S A*, 82, 7904.
43. Krishnaswamy S, Russell GD, Mann KG. (1989) The reassociation of factor Va from its isolated subunits. *J Biol Chem*, 264, 3160.
44. Li F, Gangal M, Juliano C, Gorfain E, Taylor SS, Johnson DA. (2002) Evidence for an internal entropy contribution to phosphoryl transfer: a study of domain closure, backbone flexibility, and the catalytic cycle of cAMP-dependent protein kinase. *J Mol Biol*, 315, 459.
45. Li J, Boschek CB, Xiong Y, Sacksteder CA, Squier TC, Bigelow DJ. (2005) Essential role for Pro21 in phospholamban for optimal inhibition of the Ca-ATPase. *Biochemistry*, 44, 16181.
46. Marantz Y, Einarsdottir OO, Nachliel E, Gutman M. (2001) Proton-collecting properties of bovine heart cytochrome C oxidase: kinetic and electrostatic analysis. *Biochemistry*, 40, 15086.
47. Mazurkiewicz P, Konings WN, Poelarends GJ. (2002) Acidic residues in the lactococcal multidrug efflux pump LmrP play critical roles in transport of lipophilic cationic compounds. *J Biol Chem*, 277, 26081.
48. McLachlin DT, Dunn SD. (1996) A method of screening for mutant proteins containing cysteine residues using fluorescein-5-maleimide. *Protein Expr Purif*, 7, 275.
49. Mehan RS, White NC, Falke JJ. (2003) Mapping out regions on the surface of the aspartate receptor that are essential for kinase activation. *Biochemistry*, 42, 2952.
50. Melle-Milovanovic D, Milovanovic M, Nagpal S, Sachs G, Shin JM. (1998) Regions of association between the alpha and the beta subunit of the gastric H,K-ATPase. *J Biol Chem*, 273, 11075.
51. Merickel SK, Sanders ER, Vazquez-Ibar JL, Johnson RC. (2002) Subunit exchange and the role of dimer flexibility in DNA binding by the Fis protein. *Biochemistry*, 41, 5788.
52. Mueller J, Rydstrom J. (1999) The membrane topology of proton-pumping Escherichia coli transhydrogenase determined by cysteine labeling. *J Biol Chem*, 274, 19072.
53. Militello V, Vetri V, Leone M. (2003) Conformational changes involved in thermal aggregation processes of bovine serum albumin. *Biophys Chem*, 105, 133.
54. Morris SJ, Sudhof TC, Haynes DH. (1982) Calcium-promoted resonance energy transfer between fluorescently labeled proteins during aggregation of chromaffin granule membranes. *Biochim Biophys Acta*, 693, 425.
55. Nachliel E, Gutman M. (2001) Probing of the substrate binding domain of lactose permease by a proton pulse. *Biochim Biophys Acta*, 1514, 33.
56. Nakamura Y, Takeda M, Angelides KJ, Tada K, Hariguchi S, Nishimura T. (1991) Assembly, disassembly, and exchange of glial fibrillary acidic protein. *Glia*, 4, 101.
57. Neumann L, Wohland T, Whelan RJ, Zare RN, Kobilka BK. (2002) Functional immobilization of a ligand-activated G-protein-coupled receptor. *Chembiochem*, 3, 993.
58. Osvath S, Larson JW, Wraight CA. (2001) Site specific labeling of Rhodospirillum rubrum reaction centers with dye probes for surface pH measurements. *Biochim Biophys Acta*, 1505, 238.
59. Pal P, Lebedev D, Salim S, Knauf PA. (2006) Substrates induce conformational changes in human anion exchanger 1 (hAE1) as observed by fluorescence resonance energy transfer. *Biochemistry*, 45, 6279.
60. Palmer M, Buchkremer M, Valeva A, Bhakdi S. (1997) Cysteine-specific radioiodination of proteins with fluorescein maleimide. *Anal Biochem*, 253, 175.
61. Panda D, Roy S, Bhattacharyya B. (1992) Reversible dimer dissociation of tubulin S and tubulin detected by fluorescence anisotropy. *Biochemistry*, 31, 9709.

62. Pardee JD, Simpson PA, Stryer L, Spudich JA. (1982) Actin filaments undergo limited subunit exchange in physiological salt conditions. *J Cell Biol*, 94, 316.
63. Pirch T, Landmeier S, Jung H. (2003) Transmembrane domain II of the Na⁺/proline transporter PutP of *Escherichia coli* forms part of a conformationally flexible, cytoplasmic exposed aqueous cavity within the membrane. *J Biol Chem*, 278, 42942.
64. Poelarends GJ, Konings WN. (2002) The transmembrane domains of the ABC multidrug transporter LmrA form a cytoplasmic exposed, aqueous chamber within the membrane. *J Biol Chem*, 277, 42891.
65. Polyakov V, Sharma V, Dahlheimer JL, Pica CM, Luker GD, Piwnicka-Worms D. (2000) Novel Tat-peptide chelates for direct transduction of technetium-99m and rhenium into human cells for imaging and radiotherapy. *Bioconjug Chem*, 11, 762.
66. Rimon A, Tzuberly T, Galili L, Padan E. (2002) Proximity of cytoplasmic and periplasmic loops in NhaA Na⁺/H⁺ antiporter of *Escherichia coli* as determined by site-directed thiol cross-linking. *Biochemistry*, 41, 14897.
67. Sachs G, Besancon M, Shin JM, Mercier F, Munson K, Hersey S. (1992) Structural aspects of the gastric H,K-ATPase. *J Bioenerg Biomembr*, 24, 301.
68. Sahlman L, Wong W, Powlowski J. (1997) A mercuric ion uptake role for the integral inner membrane protein, MerC, involved in bacterial mercuric ion resistance. *J Biol Chem*, 272, 29518.
69. Sharoni M, Steiner-Mordoch S, Schuldiner S. (2005) Exploring the binding domain of EmrE, the smallest multidrug transporter. *J Biol Chem*, 280, 32849.
70. Shi C, Shin YO, Hanson J, Cass B, Loewen MC, Durocher Y. (2005) Purification and characterization of a recombinant G-protein-coupled receptor, *Saccharomyces cerevisiae* Ste2p, transiently expressed in HEK293 EBNA1 cells. *Biochemistry*, 44, 15705.
71. Shin JM, Besancon M, Simon A, Sachs G. (1993) The site of action of pantoprazole in the gastric H⁺/K⁺-ATPase. *Biochim Biophys Acta*, 1148, 223.
72. Shin JM, Kajimura M, Arguello JM, Kaplan JH, Sachs G. (1994) Biochemical identification of transmembrane segments of the Ca²⁺-ATPase of sarcoplasmic reticulum. *J Biol Chem*, 269, 22533.
73. Shin JM, Sachs G. (1996) Dimerization of the gastric H⁺, K⁺-ATPase. *J Biol Chem*, 271, 1904.
74. Simmons T, Newhouse YM, Arnold KS, Innerarity TL, Weisgraber KH. (1997) Human low density lipoprotein receptor fragment. Successful refolding of a functionally active ligand-binding domain produced in *Escherichia coli*. *J Biol Chem*, 272, 25531.
75. Smallshaw JE, Brokx S, Lee JS, Waygood EB. (1998) Determination of the binding constants for three HPr-specific monoclonal antibodies and their Fab fragments. *J Mol Biol*, 280, 765.
76. Sobczak I, Lolkema JS. (2005) Loop VIII/IX of the Na⁺-citrate transporter CitS of *Klebsiella pneumoniae* folds into an amphipathic surface helix. *Biochemistry*, 44, 5461.
77. Stephens AN, Khan MA, Roucou X, Nagley P, Devenish RJ. (2003) The molecular neighborhood of subunit 8 of yeast mitochondrial F1F0-ATP synthase probed by cysteine scanning mutagenesis and chemical modification. *J Biol Chem*, 278, 17867.
78. Swartz DR. (1996) Covalent labeling of proteins with fluorescent compounds for imaging applications. *Scanning Microsc Suppl*, 10, 273.
79. Swartz DR, Moss RL, Greaser ML. (1997) Characteristics of troponin C binding to the myofibrillar thin filament: extraction of troponin C is not random along the length of the thin filament. *Biophys J*, 73, 293.
80. Valiyaveetil FI, Fillingame RH. (1998) Transmembrane topography of subunit a in the *Escherichia coli* F1F0 ATP synthase. *J Biol Chem*, 273, 16241.
81. van der Sluis EO, Nouwen N, Driessen AJ. (2002) SecY-SecY and SecY-SecE contacts revealed by site-specific crosslinking. *FEBS Lett*, 527, 159.
82. Wakabayashi H, Koszelak ME, Matri M, Fay PJ. (2001) Metal ion-independent association of factor VIII subunits and the roles of calcium and copper ions for cofactor activity and inter-subunit affinity. *Biochemistry*, 40, 10293.
83. Wawrzynow A, Collins JH. (1993) Chemical modification of the Ca²⁺-ATPase of rabbit skeletal muscle sarcoplasmic reticulum: identification of sites labeled with aryl

- isothiocyanates and thiol-directed conformational probes. *Biochim Biophys Acta*, 1203, 60.
84. Winograd E, Eda S, Sherman IW. (2004) Chemical modifications of band 3 protein affect the adhesion of *Plasmodium falciparum*-infected erythrocytes to CD36. *Mol Biochem Parasitol*, 136, 243.
 85. Wolff CE, Lai CS. (1990) Inter-sulfhydryl distances in plasma fibronectin determined by fluorescence energy transfer: effect of environmental factors. *Biochemistry*, 29, 3354.
 86. Yang CM, Lee HC. (1989) Effects of sulfhydryl reagents on [3H] inositol trisphosphate binding to dog cerebellar membranes. *J Recept Res*, 9, 159.
 87. Zheng Y, Shopes B, Holowka D, Baird B. (1991) Conformations of IgE bound to its receptor Fc epsilon RI and in solution. *Biochemistry*, 30, 9125.
 88. Zhou J, Fazzio RT, Blair DF. (1995) Membrane topology of the MotA protein of *Escherichia coli*. *J Mol Biol*, 251, 237.