

References for Products 13620 to 13625

1. Alarcon-Chaidez FJ, Boppana VD, Hagymasi AT, Adler AJ, Wikle SK. (2009) A novel sphingomyelinase-like enzyme in *Ixodes scapularis* tick saliva drives host CD4 T cells to express IL-4. *Parasite Immunol*, 31, 210.
2. Andersson D, Kotarsky K, Wu J, Agace W, Duan RD. (2009) Expression of alkaline sphingomyelinase in yeast cells and anti-inflammatory effects of the expressed enzyme in a rat colitis model. *Dig Dis Sci*, 54, 1440.
3. Buccinna B, Piccinini M, Prinetti A, Scandroglio F, Prioni S, Valsecchi M, Votta B, Grifoni S, Lupino E, Ramondetti C, Schuchman EH, Giordana MT, Sonnino S, Rinaudo MT. (2009) Alterations of myelin-specific proteins and sphingolipids characterize the brains of acid sphingomyelinase-deficient mice, an animal model of Niemann-Pick disease type A. *J Neurochem*, 109, 105.
4. de Santi Ferrara GI, Fernandes-Pedrosa Mde F, Junqueira-de-Azevedo Ide L, Goncalves-de-Andrade RM, Portaro FC, Manzoni-de-Almeida D, Murakami MT, Arni RK, van den Berg CW, Ho PL, Tambourgi DV. (2009) SMase II, a new sphingomyelinase D from *Loxosceles laeta* venom gland: molecular cloning, expression, function and structural analysis. *Toxicon*, 53, 743.
5. Hiukka A, Stahlman M, Pettersson C, Levin M, Adiels M, Teneberg S, Leinonen ES, Hulten LM, Wiklund O, Oresic M, Olofsson SO, Taskinen MR, Ekroos K, Boren J. (2009) ApoCIII-enriched LDL in type 2 diabetes displays altered lipid composition, increased susceptibility for sphingomyelinase, and increased binding to biglycan. *Diabetes*, 58, 2018.
6. Ichi I, Kamikawa C, Nakagawa T, Kobayashi K, Kataoka R, Nagata E, Kitamura Y, Nakazaki C, Matsura T, Kojo S. (2009) Neutral sphingomyelinase-induced ceramide accumulation by oxidative stress during carbon tetrachloride intoxication. *Toxicology*, 261, 33.
7. Ito H, Murakami M, Furuhata A, Gao S, Yoshida K, Sobue S, Hagiwara K, Takagi A, Kojima T, Suzuki M, Banno Y, Tanaka K, Tamiya-Koizumi K, Kyogashima M, Nozawa Y, Murate T. (2009) Transcriptional regulation of neutral sphingomyelinase 2 gene expression of a human breast cancer cell line, MCF-7, induced by the anti-cancer drug, daunorubicin. *Biochim Biophys Acta*, 1789, 681.
8. Oda M. (2009) [Structure and function of sphingomyelinase]. *Yakugaku Zasshi*, 129, 1233.
9. Sugimori D. (2009) Purification, characterization, and gene cloning of sphingomyelinase C from *Streptomyces griseocarneus* NBRC13471. *J Biosci Bioeng*, 108, 293.
10. Tian HP, Qiu TZ, Zhao J, Li LX, Guo J. (2009) Sphingomyelinase-induced ceramide production stimulate calcium-independent JNK and PP2A activation following cerebral ischemia. *Brain Inj*, 23, 1073.
11. Urbina P, Flores-Diaz M, Alape-Giron A, Alonso A, Goni FM. (2009) Phospholipase C and sphingomyelinase activities of the *Clostridium perfringens* alpha-toxin. *Chem Phys Lipids*, 159, 51.
12. Vasil ML, Stonehouse MJ, Vasil AI, Wadsworth SJ, Goldfine H, Bolcome RE, 3rd, Chan J. (2009) A complex extracellular sphingomyelinase of *Pseudomonas aeruginosa* inhibits angiogenesis by selective cytotoxicity to endothelial cells. *PLoS Pathog*, 5, e1000420.
13. Yabu T, Shimuzu A, Yamashita M. (2009) A novel mitochondrial sphingomyelinase in zebrafish cells. *J Biol Chem*, 284, 20349.
14. Chudakova DA, Zeidan YH, Wheeler BW, Yu J, Novgorodov SA, Kindy MS, Hannun YA, Gudz TI. (2008) Integrin-associated Lyn kinase promotes cell survival by suppressing acid sphingomyelinase activity. *J Biol Chem*, 283, 28806.
15. Clarke CJ, Guthrie JM, Hannun YA. (2008) Regulation of neutral sphingomyelinase-2 (nSMase2) by tumor necrosis factor-alpha involves protein kinase C-delta in lung epithelial cells. *Mol Pharmacol*, 74, 1022.

16. de Almeida DM, Fernandes-Pedrosa Mde F, de Andrade RM, Marcelino JR, Gondo-Higashi H, de Azevedo Ide L, Ho PL, van den Berg C, Tambourgi DV. (2008) A new anti-ioxoscelic serum produced against recombinant sphingomyelinase D: results of preclinical trials. *Am J Trop Med Hyg*, 79, 463.
17. Devlin CM, Leventhal AR, Kuriakose G, Schuchman EH, Williams KJ, Tabas I. (2008) Acid sphingomyelinase promotes lipoprotein retention within early atheromata and accelerates lesion progression. *Arterioscler Thromb Vasc Biol*, 28, 1723.
18. Di Marzio L, Cinque B, Cupelli F, De Simone C, Cifone MG, Giuliani M. (2008) Increase of skin-ceramide levels in aged subjects following a short-term topical application of bacterial sphingomyelinase from *Streptococcus thermophilus*. *Int J Immunopathol Pharmacol*, 21, 137.
19. Galvan C, Camoletto PG, Cristofani F, Van Veldhoven PP, Ledesma MD. (2008) Anomalous surface distribution of glycosyl phosphatidyl inositol-anchored proteins in neurons lacking acid sphingomyelinase. *Mol Biol Cell*, 19, 509.
20. Henkes LE, Sullivan BT, Lynch MP, Kolesnick R, Arsenault D, Puder M, Davis JS, Rueda BR. (2008) Acid sphingomyelinase involvement in tumor necrosis factor alpha-regulated vascular and steroid disruption during luteolysis in vivo. *Proc Natl Acad Sci U S A*, 105, 7670.
21. Jafurulla M, Pucadyil TJ, Chattopadhyay A. (2008) Effect of sphingomyelinase treatment on ligand binding activity of human serotonin1A receptors. *Biochim Biophys Acta*, 1778, 2022.
22. Jin S, Yi F, Zhang F, Poklis JL, Li PL. (2008) Lysosomal targeting and trafficking of acid sphingomyelinase to lipid raft platforms in coronary endothelial cells. *Arterioscler Thromb Vasc Biol*, 28, 2056.
23. Kim WJ, Okimoto RA, Purton LE, Goodwin M, Haserlat SM, Dayyani F, Sweetser DA, McClatchey AI, Bernard OA, Look AT, Bell DW, Scadden DT, Haber DA. (2008) Mutations in the neutral sphingomyelinase gene SMPD3 implicate the ceramide pathway in human leukemias. *Blood*, 111, 4716.
24. Saunders GK, Wenger DA. (2008) Sphingomyelinase deficiency (Niemann-Pick disease) in a Hereford calf. *Vet Pathol*, 45, 201.
25. Smith EL, Schuchman EH. (2008) Acid sphingomyelinase overexpression enhances the antineoplastic effects of irradiation in vitro and in vivo. *Mol Ther*, 16, 1565.
26. Walters MJ, Wrenn SP. (2008) Effect of sphingomyelinase-mediated generation of ceramide on aggregation of low-density lipoprotein. *Langmuir*, 24, 9642.
27. Yabu T, Imamura S, Yamashita M, Okazaki T. (2008) Identification of Mg²⁺-dependent neutral sphingomyelinase 1 as a mediator of heat stress-induced ceramide generation and apoptosis. *J Biol Chem*, 283, 29971.
28. Bock J, Liebisch G, Schweimer J, Schmitz G, Rogler G. (2007) Exogenous sphingomyelinase causes impaired intestinal epithelial barrier function. *World J Gastroenterol*, 13, 5217.
29. Cheng Y, Kozubek A, Ohlsson L, Sternby B, Duan RD. (2007) Curcumin decreases acid sphingomyelinase activity in colon cancer Caco-2 cells. *Planta Med*, 73, 725.
30. Cheng Y, Wu J, Hertervig E, Lindgren S, Duan D, Nilsson A, Duan RD. (2007) Identification of aberrant forms of alkaline sphingomyelinase (NPP7) associated with human liver tumorigenesis. *Br J Cancer*, 97, 1441.
31. Doehner W, Bunck AC, Rauchhaus M, von Haehling S, Brunkhorst FM, Cicora M, Tschope C, Ponikowski P, Claus RA, Anker SD. (2007) Secretory sphingomyelinase is upregulated in chronic heart failure: a second messenger system of immune activation relates to body composition, muscular functional capacity, and peripheral blood flow. *Eur Heart J*, 28, 821.
32. Dudnik LB, Tsiupko AN, Shupik MA, Akhaladze GG, Gal'perin EI, Platonova LV, Pantaz EA, Iasnetsov VV, Smirnov LD, Alesenko AV. (2007) [Relationship of tumor necrosis factor alpha expression with activation of sphingomyelinase and lipid peroxidation after removal of cholestatic factor]. *Izv Akad Nauk Ser Biol*, 5.
33. Fotoulaki M, Schuchman EH, Simonaro CM, Augoustides-Savvopoulou P, Michelakakis H, Panagopoulou P, Varlamis G, Nousia-Arvanitakis S. (2007) Acid sphingomyelinase-

- deficient Niemann-Pick disease: novel findings in a Greek child. *J Inherit Metab Dis*, 30, 986.
34. Kim HT, Lee JY, Han BG, Kimm K, Oh B, Shin HD, Namkung JH, Kim E, Park T, Yang JM. (2007) Association analysis of sphingomyelinase 2 polymorphisms for the extrinsic type of atopic dermatitis in Koreans. *J Dermatol Sci*, 46, 143.
35. Lang PA, Schenck M, Nicolay JP, Becker JU, Kempe DS, Lupescu A, Koka S, Eisele K, Klarl BA, Rubben H, Schmid KW, Mann K, Hildenbrand S, Heftner H, Huber SM, Wieder T, Erhardt A, Haussinger D, Gulbins E, Lang F. (2007) Liver cell death and anemia in Wilson disease involve acid sphingomyelinase and ceramide. *Nat Med*, 13, 164.
36. McCollister BD, Myers JT, Jones-Carson J, Voelker DR, Vazquez-Torres A. (2007) Constitutive acid sphingomyelinase enhances early and late macrophage killing of *Salmonella enterica* serovar *Typhimurium*. *Infect Immun*, 75, 5346.
37. Mihaylova V, Hantke J, Sinigerska I, Cherninkova S, Raicheva M, Bouwer S, Tincheva R, Khuyomdziev D, Bertranpetti J, Chandler D, Angelicheva D, Kremensky I, Seeman P, Tournev I, Kalaydjieva L. (2007) Highly variable neural involvement in sphingomyelinase-deficient Niemann-Pick disease caused by an ancestral Gypsy mutation. *Brain*, 130, 1050.
38. Tani M, Hannun YA. (2007) Analysis of membrane topology of neutral sphingomyelinase 2. *FEBS Lett*, 581, 1323.
39. Yang WW, Dodge JC, Passini MA, Taksir TV, Griffiths D, Schuchman EH, Cheng SH, Shihabuddin LS. (2007) Intraparenchymal injections of acid sphingomyelinase results in regional correction of lysosomal storage pathology in the Niemann-Pick A mouse. *Exp Neurol*, 207, 258.
40. Dhami R, Passini MA, Schuchman EH. (2006) Identification of novel biomarkers for Niemann-Pick disease using gene expression analysis of acid sphingomyelinase knockout mice. *Mol Ther*, 13, 556.
41. Dumitru CA, Gulbins E. (2006) TRAIL activates acid sphingomyelinase via a redox mechanism and releases ceramide to trigger apoptosis. *Oncogene*, 25, 5612.
42. Durham JP, Mawhinney MG. (2006) Down-regulation of neutral sphingomyelinase in androgen-dependent smooth muscle. *J Surg Res*, 130, 136.
43. Gilbert SJ, Blain EJ, Jones P, Duance VC, Mason DJ. (2006) Exogenous sphingomyelinase increases collagen and sulphated glycosaminoglycan production by primary articular chondrocytes: an in vitro study. *Arthritis Res Ther*, 8, R89.
44. Ng CG, Griffin DE. (2006) Acid sphingomyelinase deficiency increases susceptibility to fatal alphavirus encephalomyelitis. *J Virol*, 80, 10989.
45. Paixao-Cavalcante D, van den Berg CW, de Freitas Fernandes-Pedrosa M, Goncalves de Andrade RM, Tambourgi DV. (2006) Role of matrix metalloproteinases in HaCaT keratinocytes apoptosis induced by loxosceles venom sphingomyelinase D. *J Invest Dermatol*, 126, 61.
46. Simonaro CM, Park JH, Eliyahu E, Shtraizent N, McGovern MM, Schuchman EH. (2006) Imprinting at the SMPD1 locus: implications for acid sphingomyelinase-deficient Niemann-Pick disease. *Am J Hum Genet*, 78, 865.
47. Smith AR, Visioli F, Frei B, Hagen TM. (2006) Age-related changes in endothelial nitric oxide synthase phosphorylation and nitric oxide dependent vasodilation: evidence for a novel mechanism involving sphingomyelinase and ceramide-activated phosphatase 2A. *Aging Cell*, 5, 391.
48. Tamura H, Takahashi T, Ban N, Torisu H, Ninomiya H, Takada G, Inagaki N. (2006) Niemann-Pick type C disease: novel NPC1 mutations and characterization of the concomitant acid sphingomyelinase deficiency. *Mol Genet Metab*, 87, 113.
49. Binford GJ, Cordes MH, Wells MA. (2005) Sphingomyelinase D from venoms of *Loxosceles* spiders: evolutionary insights from cDNA sequences and gene structure. *Toxicon*, 45, 547.
50. Butler A, Henderson SC, Gordon RE, Dagan A, Gatt S, Schuchman EH. (2005) Preimplantation diagnosis of a lysosomal storage disorder by *in situ* enzymatic activity: 'proof of principle' in acid sphingomyelinase-deficient mice. *J Inherit Metab Dis*, 28, 1.

51. Claus RA, Bunck AC, Bockmeyer CL, Brunkhorst FM, Losche W, Kinscherf R, Deigner HP. (2005) Role of increased sphingomyelinase activity in apoptosis and organ failure of patients with severe sepsis. *Faseb J*, 19, 1719.
52. Di Marzio L, Di Leo A, Cinque B, Fanini D, Agnifili A, Berloco P, Linsalata M, Lorusso D, Barone M, De Simone C, Cifone MG. (2005) Detection of alkaline sphingomyelinase activity in human stool: proposed role as a new diagnostic and prognostic marker of colorectal cancer. *Cancer Epidemiol Biomarkers Prev*, 14, 856.
53. Dudnik LB, Tsiupko AN, Shingarova LN, Shupik MA, Akhaladze GG, Gal'perin EI, Platonova LV, Shono NI, Iasnetsov VV, Alesenko AV. (2005) [Changes in sphingomyelinase activity, tumor necrosis factor alpha level, and lipid peroxidation rate in the course of development of cholestatic liver injury]. *Izv Akad Nauk Ser Biol*, 650.
54. Kim SK, Jung SM, Ahn KH, Jeon HJ, Lee DH, Jung KM, Jung SY, Kim DK. (2005) Identification of three competitive inhibitors for membrane-associated, Mg²⁺-dependent and neutral 60 kDa sphingomyelinase activity. *Arch Pharm Res*, 28, 923.
55. Kornhuber J, Medlin A, Bleich S, Jendrossek V, Henkel AW, Wiltfang J, Gulbins E. (2005) High activity of acid sphingomyelinase in major depression. *J Neural Transm*, 112, 1583.
56. Mintzer RJ, Appell KC, Cole A, Johns A, Pagila R, Polokoff MA, Tabas I, Snider RM, Meurer-Ogden JA. (2005) A novel high-throughput screening format to identify inhibitors of secreted acid sphingomyelinase. *J Biomol Screen*, 10, 225.
57. Mogami K, Kishi H, Kobayashi S. (2005) Sphingomyelinase causes endothelium-dependent vasorelaxation through endothelial nitric oxide production without cytosolic Ca(2+) elevation. *FEBS Lett*, 579, 393.
58. Oorni K, Posio P, Ala-Korpela M, Jauhainen M, Kovanen PT. (2005) Sphingomyelinase induces aggregation and fusion of small very low-density lipoprotein and intermediate-density lipoprotein particles and increases their retention to human arterial proteoglycans. *Arterioscler Thromb Vasc Biol*, 25, 1678.
59. Sathishkumar S, Boyanova B, Karakashian AA, Rozenova K, Giltiay NV, Kudrimoti M, Mohiuddin M, Ahmed MM, Nikolova-Karakashian M. (2005) Elevated sphingomyelinase activity and ceramide concentration in serum of patients undergoing high dose spatially fractionated radiation treatment: implications for endothelial apoptosis. *Cancer Biol Ther*, 4, 979.
60. Suzuki O, Nozawa Y, Abe M. (2005) Regulatory roles of cell surface sialylation in susceptibility to sphingomyelinase in human diffuse large B cell lymphoma. *Int J Oncol*, 27, 209.
61. Tambourgi DV, Paixao-Cavalcante D, Goncalves de Andrade RM, Fernandes-Pedrosa Mde F, Magnoli FC, Paul Morgan B, van den Berg CW. (2005) *Loxosceles* sphingomyelinase induces complement-dependent dermonecrosis, neutrophil infiltration, and endogenous gelatinase expression. *J Invest Dermatol*, 124, 725.
62. van Diggelen OP, Voznyi YV, Keulemans JL, Schoonderwoerd K, Ledvinova J, Mengel E, Zschiesche M, Santer R, Harzer K. (2005) A new fluorimetric enzyme assay for the diagnosis of Niemann-Pick A/B, with specificity of natural sphingomyelinase substrate. *J Inherit Metab Dis*, 28, 733.
63. Wu J, Cheng Y, Jonsson BA, Nilsson A, Duan RD. (2005) Acid sphingomyelinase is induced by butyrate but does not initiate the anticancer effect of butyrate in HT29 and HepG2 cells. *J Lipid Res*, 46, 1944.
64. Zeng C, Lee JT, Chen H, Chen S, Hsu CY, Xu J. (2005) Amyloid-beta peptide enhances tumor necrosis factor-alpha-induced iNOS through neutral sphingomyelinase/ceramide pathway in oligodendrocytes. *J Neurochem*, 94, 703.
65. Kolzer M, Ferlinz K, Bartelsen O, Hoops SL, Lang F, Sandhoff K. (2004) Functional characterization of the postulated intramolecular sphingolipid activator protein domain of human acid sphingomyelinase. *Biol Chem*, 385, 1193.
66. McGovern MM, Schuchman EH. (1993) Acid Sphingomyelinase Deficiency.