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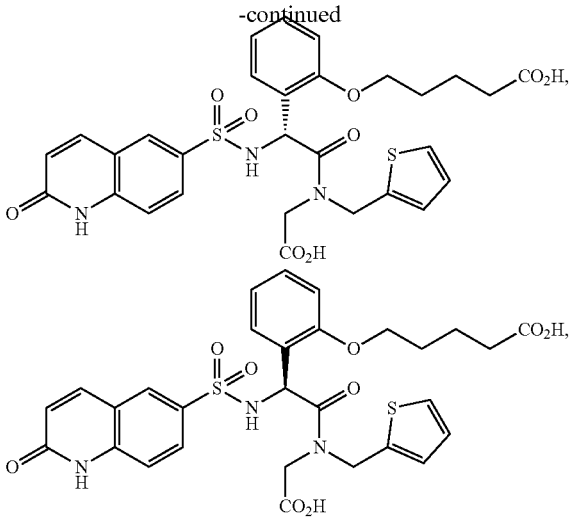

or a pharmaceutically acceptable salt, solvate, hydrate, polymorph, co-crystal, tautomer, stereoisomer, isotopically labeled derivative, or prodrug thereof.

37. A pharmaceutical composition comprising a compound of any one of claims **1-36**, or a pharmaceutically acceptable salt, solvate, hydrate, polymorph, co-crystal, tautomer, stereoisomer, isotopically labeled derivative, or prodrug thereof, and optionally a pharmaceutically acceptable excipient.

38. The pharmaceutical composition of claim **37**, wherein the pharmaceutical composition comprises a therapeutically effective amount of the compound for use in treating a proliferative disease in a subject in need thereof.

39. A method for treating an OGT-associated disease or condition in a subject comprising administering to a subject in need of such treatment a therapeutically effective amount of a compound of any one of claims **1-36**, or a pharmaceutically acceptable salt, solvate, hydrate, polymorph, co-crystal, tautomer, stereoisomer, isotopically labeled derivative, or prodrug thereof, or a pharmaceutical composition of claim **37** or **38**.

40. The method of claim **39**, wherein the subject is a human.

41. The method of claim **39**, wherein the compound or pharmaceutical composition is administered in combination with an additional drug for treating an OGT-associated disease or condition.

42. The method of claim **39**, wherein the OGT-associated disease or condition is a neurodegenerative disease, proliferative disease, metabolic disease, cardiovascular disease associated with poor insulin regulation, autoimmune disease, or inflammatory disease.

43. The method of claim **42**, wherein the metabolic disease is diabetes mellitus type I, diabetes mellitus type II, insulin resistance, or a complication of diabetes.

44. The method of claim **43**, wherein the complication of diabetes is insulin resistance, vascular disease, skin ulcers, circulatory damage, diabetic nephropathy, diabetic retinopathy, diabetic keratopathy, microvascular disease, macrovascular disease, or diabetic neuropathy.

45. The method of claim **42**, wherein the neurodegenerative disease is Alzheimer's disease, progressive supranuclear palsy, corticobasal degeneration, frontotemporal lobar degeneration, or Pick's disease.

46. The method of claim **42**, wherein the cancer is of the breast; biliary tract; bladder; bone; brain; central and peripheral nervous system; cervix; colon; connective tissue; endocrine glands; esophagus; endometrium; germ cells; gastrointestinal tract; head and neck; kidney; liver; lung; larynx and hypopharynx; mesothelioma; muscle; ovary; pancreas; prostate; rectum; kidney; small intestine; soft tissue; testis, including germinal tumors such as seminoma, non-seminoma (teratomas, choriocarcinomas), stromal tumors, and germ cell tumors; thyroid, including thyroid adenocarcinoma and medullar carcinoma; stomach; skin; ureter; vagina; and vulva; retinoblastoma; leukemia, lymphoma; myelodysplastic syndrome; plasma cell neoplasia; paraneoplastic syndromes; intraepithelial neoplasms; neuroblastomas; oral cancer; cancers of unknown primary site; or AIDS-related malignancies.

47. The method of claim **42**, wherein the autoimmune disease is inflammatory bowel disease, arthritis, systemic lupus erythematosus, rheumatoid arthritis, psoriatic arthritis, osteoarthritis, Still's disease, juvenile arthritis, diabetes, myasthenia gravis, Hashimoto's thyroiditis, Ord's thyroiditis, Graves' disease, Sjogren's syndrome, multiple sclerosis, Guillain-Barre syndrome, acute disseminated encephalomyelitis, Addison's disease, opsoclonus-myoclonus syndrome, ankylosing spondylosis, antiphospholipid antibody syndrome, aplastic anemia, autoimmune hepatitis, celiac disease, Goodpasture's syndrome, idiopathic thrombocytopenic purpura, optic neuritis, scleroderma, primary biliary cirrhosis, Reiter's syndrome, Takayasu's arteritis, temporal arteritis, warm autoimmune hemolytic anemia, Wegener's granulomatosis, psoriasis, alopecia universalis, Behcet's disease, chronic fatigue, dysautonomia, endometriosis, interstitial cystitis, neuromyotonia, scleroderma, or vulvodynia.

48. The method of claim **42**, wherein the inflammatory disease is asthma, appendicitis, Blau syndrome, blepharitis, bronchiolitis, bronchitis, bursitis, cervicitis, cholangitis, cholecystitis, chronic obstructive pulmonary disease (COPD), chronic recurrent multifocal osteomyelitis (CRMO), colitis, conjunctivitis, cryopyrin associated periodic syndrome (CAPS), cystitis, dacryoadenitis, dermatitis, dermatomyositis, dry eye syndrome, encephalitis, endocarditis, endometritis, enteritis, enterocolitis, epicondylitis, epididymitis, familial cold-induced autoinflammatory syndrome, familial Mediterranean fever (FMF), fasciitis, fibrositis, gastritis, gastroenteritis, hepatitis, hidradenitis suppurativa, laryngitis, mastitis, meningitis, mevalonate kinase deficiency (MKD), Muckle-Well syndrome, myelitis myocarditis, myositis, nephritis, oophoritis, orchitis, osteitis, inflammatory osteolysis, otitis, pancreatitis, parotitis, pericarditis, peritonitis, pharyngitis, pleuritis, phlebitis, pneumonitis, pneumonia, proctitis, prostatitis, pulmonary fibrosis, pyelonephritis, pyoderma gangrenosum and acne syndrome (PAPA), pyogenic sterile arthritis, rhinitis, salpingitis, sinusitis, stomatitis, synovitis, systemic juvenile rheumatoid arthritis, tendonitis, TNF receptor associated periodic syndrome (TRAPS), tonsillitis, undifferentiated spondyloarthropathy, undifferentiated arthropathy, uveitis, vaginitis, vasculitis, vulvitis, chronic inflammation resulting from chronic viral or bacteria infections, or psoriasis.

49. A method for inhibiting OGT activity in a biological sample, the method comprising: contacting the biological