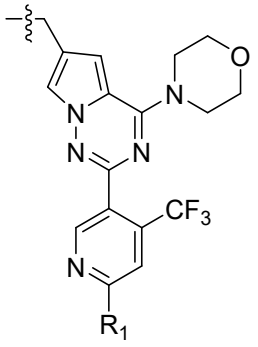
CLAIMS

What is claimed is:

1. A pharmaceutical composition comprising a therapeutically effective amount of a compound having the formula:

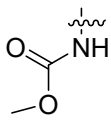
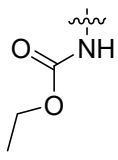
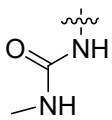
(FCB)a-(L)b-(CLM)c,

FCB has the structure:

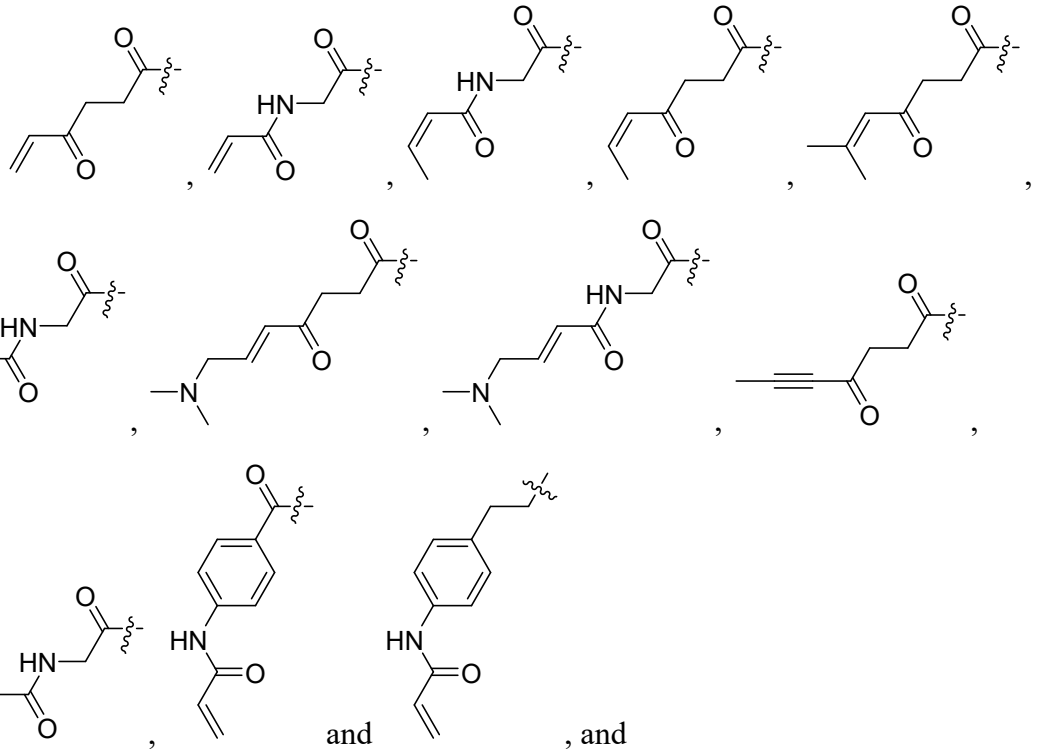


;

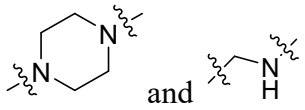
wherein R_1 is selected from the group consisting of:

 ,  ,  and  ;

CLM is selected from the group consisting of:



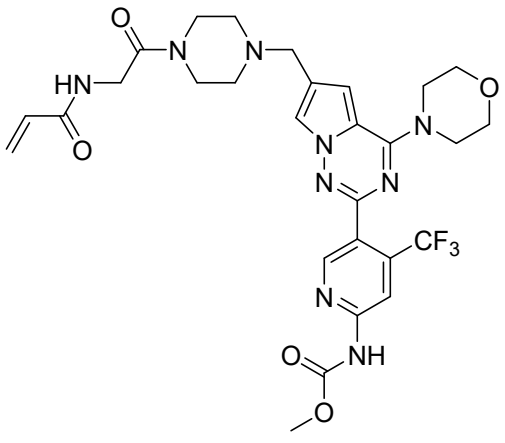
L is a linker selected from:



at least one pharmaceutical excipient,

wherein the pharmaceutical composition allows for immediate release of the compound.

2. The pharmaceutical composition of claim 1, wherein the compound is Compound I:



Compound I,

or a pharmaceutically acceptable salt or solvate thereof.

3. The pharmaceutical composition of claim 2, wherein Compound I is a pharmaceutically acceptable salt selected from a phosphate salt, hydrochloride salt, sulfate salt, mesylate salt, benzenesulfonate salt, tosylate salt, fumarate salt, maleate salt, L-tartrate salt, citrate salt, and succinate salt, or a solvate thereof.

4. The pharmaceutical composition of any of claims 1-3, wherein the compound is present in an amount of 1% wt to about 4% wt.

5. The pharmaceutical composition of any of claims 1-4, wherein the pharmaceutical composition is substantially free of any reducing sugar.

6. The pharmaceutical composition of any of claims 1-5, comprising a filler selected from microcrystalline cellulose, silicified microcrystalline cellulose, pregelatinized starch, dibasic calcium phosphate dihydrate, or any combination thereof.

7. The pharmaceutical composition of claim 6, wherein the filler is in an amount ranging from about 70% wt to about 90% wt of the total weight of the composition.

8. The pharmaceutical composition of any of claims 1-7, further comprising a binder, disintegrant, glidant, lubricant, or a combination thereof.

9. The pharmaceutical composition of any of claims 1-8, wherein the pharmaceutical composition comprises granules comprising the compound and at least one pharmaceutically acceptable excipient.

10. The pharmaceutical composition of claim 9, wherein the granules are compressed into a tablet.

11. The pharmaceutical composition of claim 9 or 10, wherein the granules, before compression have:

a D85 value of about 60 μm to about 80 μm;

a D65 value of about 120 μm to about 160 μm;

a D45 value of about 350 μm to about 450 μm;

or a combination thereof.

12. The pharmaceutical composition of claim 10 or 11, wherein at least about 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% of the compound is released within about 10 minutes in 0.01M HCl at 37.0°C, Apparatus (II) paddle, 75 rpm.

13. Use of the pharmaceutical composition of any of claims 1-12 in the manufacture of a medicament for the treatment of a cancer, a neurodegenerative disease, an autoimmune disorder, or aging.

14. Use of the pharmaceutical composition of any of claims 1-12 in the manufacture of a medicament for the treatment of cancer.

15. The use of claim 14, wherein the cancer is selected from one or more of the group consisting of leukemia, tumors of the brain, lung (small cell and non-small cell), ovary, prostate, breast, colon, and cancer in a tissue, including intestinal tissue, pancreatic tissue, liver, kidney, prostate, ovary, lung, bone marrow, or breast tissue

16. The use of claim 14, wherein the cancer is a cancer with a mutation in the PIK3CA gene.