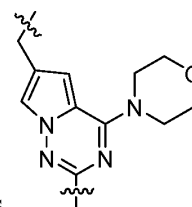
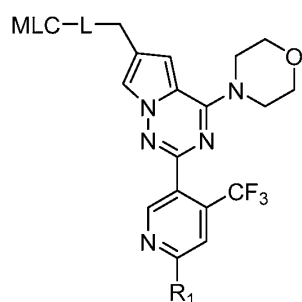


CLAIMS

1. A therapeutic conjugate that forms a covalent bond with a kinase or pseudokinase.
2. The therapeutic conjugate of claim 1, wherein the kinase is PI3-kinase (PI3K).
3. The therapeutic conjugate of claim 1 or claim 2, wherein the therapeutic conjugate has a structure of
(FCB)a-(L)b-(CLM)c,
wherein a and c are, independently, integers between 1 and 5,
b is an integer between 0 and 5, and
wherein the FCB moiety comprises a PI3K inhibitor, or a fragment, analog or derivative thereof.

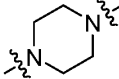


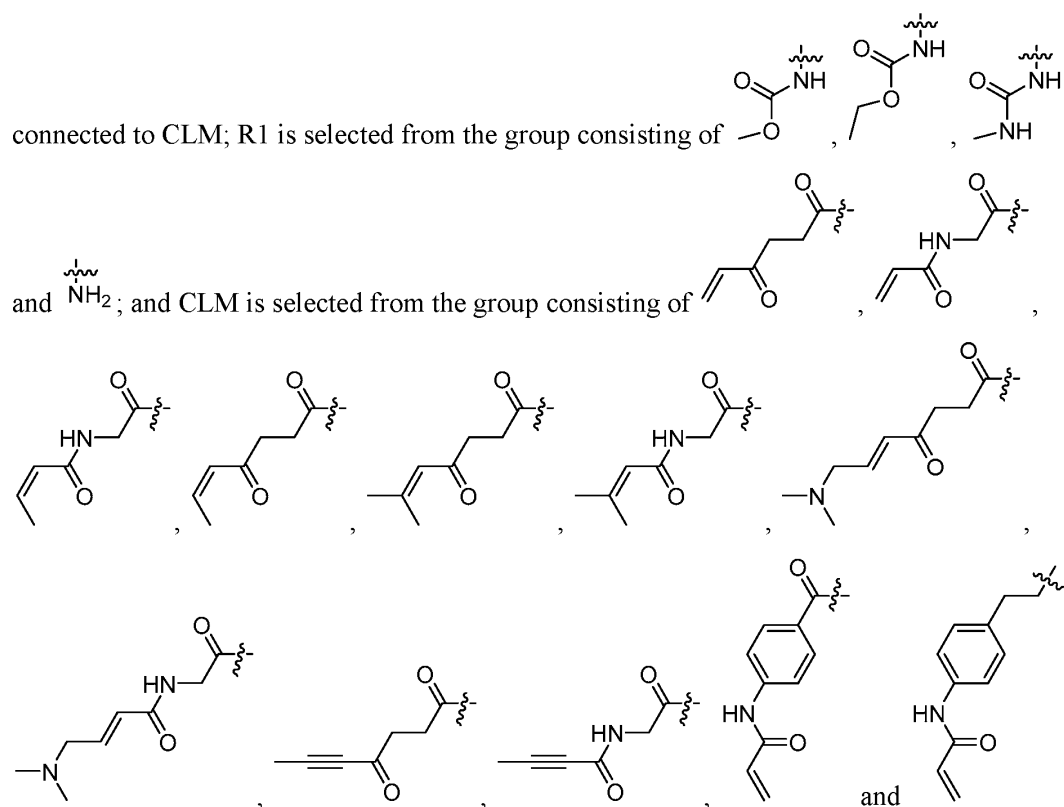
4. The therapeutic conjugate of claim 3, wherein the FCB comprises
5. The therapeutic conjugate of claim 4, wherein the therapeutic conjugate comprises a structure selected from the group consisting of Compound 1-101 to Compound 1-172.
6. The therapeutic conjugate of claim 1 or claim 2 having a structure of



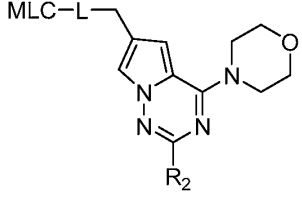
Formula 1-50

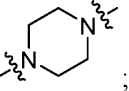
or a pharmaceutically acceptable salt thereof, wherein L is

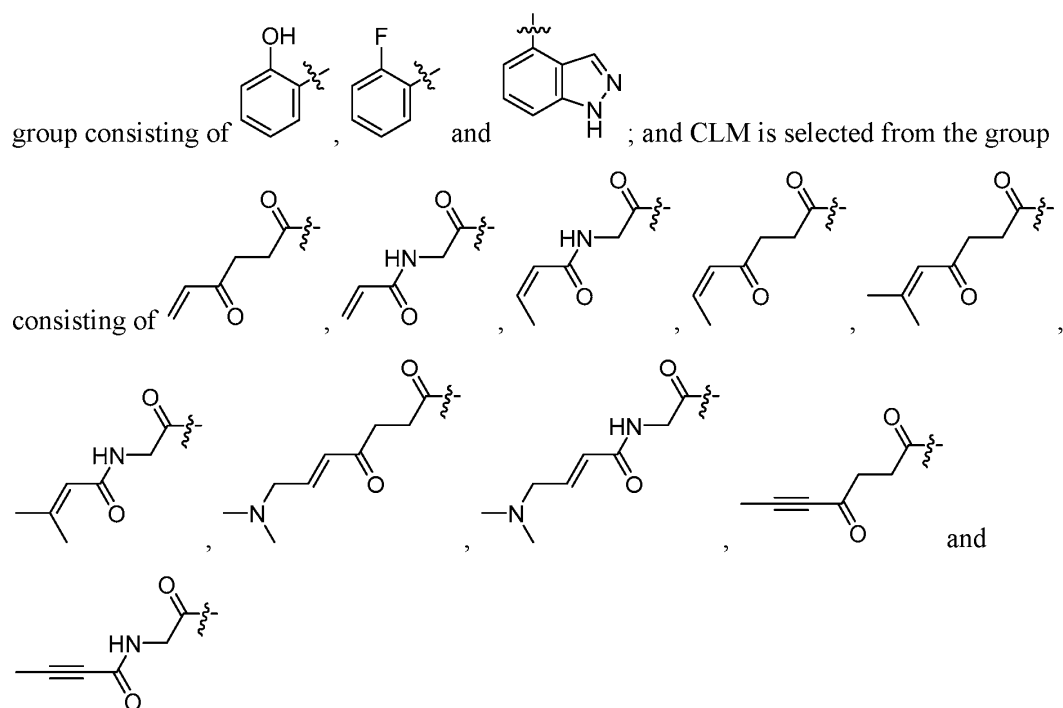
selected from the group consisting of  and  wherein either end can be



7. The therapeutic conjugate of claim 6 selected from the group consisting of compounds 1-101, 1-102, 1-103, 1-104, 1-105, 1-106, 1-107, 1-108, 1-109, 1-110, 1-111, 1-112, 1-113, 1-114, 1-115, 1-116, 1-117, 1-118, 1-119, 1-120, 1-121, 1-122, 1-123, 1-124, 1-125, 1-126, 1-127, 1-128, 1-129, 1-130, 1-137, 1-138, 1-145, 1-146, 1-153, 1-154, 1-161, 1-162, 1-169, 1-170, 1-171 and 1-172.

8. The therapeutic conjugate of claim 1 having a structure of  Formula 1-51 or a

pharmaceutically acceptable salt thereof, wherein L is ; R2 is selected from the



9. The therapeutic conjugate of claim 8 selected from the group consisting of compounds 1-131, 1-132, 1-133, 1-134, 1-135, 1-136, 1-139, 1-140, 1-141, 1-142, 1-143, 1-144, 1-147, 1-148, 1-149, 1-150, 1-151, 1-152, 1-155, 1-156, 1-157, 1-158, 1-159, 1-160, 1-163, 1-164, 1-165, 1-166, 1-167 and 1-168.

10. A therapeutic conjugate comprising a structure selected from Compound 1-101 to Compound 1-172, or a pharmaceutical acceptable salt thereof.

11. A therapeutic conjugate comprising a structure selected from Compound 1-1 to Compound 1-11, or a pharmaceutical acceptable salt thereof.

12. A pharmaceutical composition comprising the therapeutic conjugate of any one of claims 1-11 and at least one pharmaceutically acceptable excipient.

13. A method of regulating the activity of a kinase or pseudokinase, comprising administering the therapeutic conjugate of any one of claims 1-11.

14. The method of claim 13, wherein the activity of the kinase or pseudokinase is inhibited.

15. The method of claim 13, wherein the kinase is PI3K.
16. A method of treating a subject in need thereof comprising administering a therapeutically effective amount of the pharmaceutical composition of claim 12.
17. The method of claim 16, wherein the subject has a therapeutic condition selected from the group consisting of cancer, neurodegenerative disease, autoimmune disorder and aging.
18. The method of claim 17, wherein the subject has cancer.
19. The method of claim 18, wherein the subject has cancer with a mutation in the PIK3CA gene.