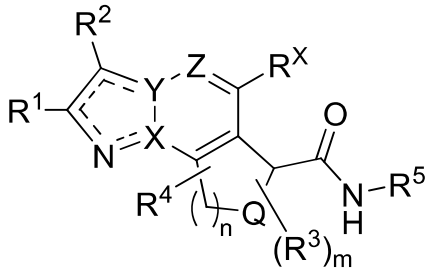
SUMMARY

In an aspect, there is provided a compound of Formula (I) or a pharmaceutically acceptable salt thereof:



(I)

wherein:

each ⎓ is a single or double bond;

Q is $–CH_2–$, O, or NH;

X is N or C;

Y is N or C;

Z is N or CR^6;

wherein when one of X and Y is N, the other of X and Y is C;

n is 1, 2, or 3;

R^X is hydrogen or halogen;

R^1 is hydrogen, halogen, cyano, hydroxyl, C1-C3 alkoxy, C1-C3 haloalkoxy, C1-C3 haloalkyl, $-NR^AR^B$, or C1-C3 alkyl optionally substituted with 1-3 substituents selected from hydroxyl and C1-C3 alkoxy;

R^2 is hydrogen, halogen, amino, or C1-C3 alkyl;

each R^3 is independently deuterium, halogen, C3-C6 cycloalkyl, C1-C3 alkyl, C1-C3 alkoxy, C1-C3 haloalkoxy, or C1-C3 haloalkyl;

m is 0, 1, 2, or 3;

R^4 is 5-10 membered heteroaryl optionally substituted with one to three substituents each independently selected from R^7;

R^5 is phenyl or 5-9 membered heteroaryl, wherein each R^5 group is optionally substituted with 1-3 substituents independently selected from R^8;

R^6 is hydrogen, halogen, cyano, hydroxyl, C1-C3 alkoxy, C1-C3 haloalkoxy, C1-C3 haloalkyl, -NR^CR^D, and C1-C3 alkyl;

each R^7 is independently selected from the group consisting of halogen, cyano, hydroxyl, C1-C3 alkoxy, C1-C3 haloalkoxy, C1-C3 haloalkyl, oxetanyl, -NR^CR^D, C1-C3 alkyl optionally substituted with one cyclopropyl; and C3-C7 cycloalkyl optionally substituted with one C1-C3 alkyl;

each R^8 is independently selected from halogen; cyano; amino; -N=(S=O)(C1-C3 alkyl)$_2$; -S(=O)$_p$(C1-C3 alkyl); 1-imino-1-lambda^6-thietanyl 1-oxide, -(C=O)NR^ER^F; C1-C3 alkoxy; C1-C3 haloalkyl optionally substituted with hydroxyl; C1-C3 haloalkoxy; 5-6 membered heteroaryl optionally substituted with halogen, cyano, hydroxyl, C1-C3 alkoxy, C1-C3 haloalkoxy, amino, C1-C3 haloalkyl, 4-6 membered heterocyclyl, or C1-C3 alkyl optionally substituted with hydroxyl or -NR^ER^F; C1-C4 alkyl optionally substituted with hydroxyl, -NR^ER^F, or C1-C3 alkoxy; 3-8 membered heterocyclyl; and C3-C6 cycloalkoxy;

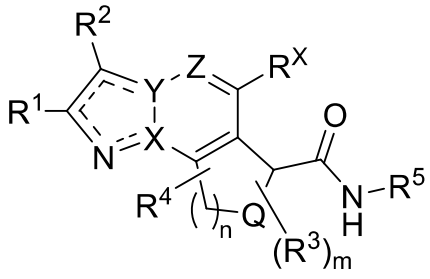
p is 1 or 2; and

R^A, R^B, R^C, R^D, R^E, and R^F, are independently hydrogen, C1-C3 alkyl, C3-C6 cycloalkyl, or R^A and R^B, or R^C and R^D, or R^E and R^F, together with the nitrogen atom to which they are attached come together to form a 4-6 membered heterocyclyl optionally substituted with 1-2 halogens.

In another aspect, there is provided a pharmaceutical composition comprising a compound as defined above, or a pharmaceutically acceptable salt thereof, in combination with one or more pharmaceutically acceptable excipients.

In another aspect, there is provided a method for treating cancer in a subject in need thereof, comprising administering to the subject an effective amount of a compound as defined above, or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition asa defined above.

Accordingly, provided herein is a compound of the Formula (I):



(I)

or a pharmaceutically acceptable salt thereof, wherein X, Y, Z, Q, n, R^X, R^1, R^2, R^3, m, R^4 and R^5 are as defined herein.

Also provided herein is a pharmaceutical composition comprising a compound of Formula (I), or a pharmaceutically acceptable salt thereof, and at least one pharmaceutically acceptable excipient.

Also provided are methods for treating a CBM complex pathway-associated cancer in a subject in need thereof, comprising administering to the subject an effective amount of a compound of Formula (I), or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition as described herein.

Also provided are methods for treating a cancer in a subject in need thereof, comprising:

(a) identifying the cancer as being a CBM complex pathway-associated cancer; and

(b) administering to the subject an effective amount of a compound of Formula (I), or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition as described herein.

Also provided are methods for treating a cancer in a subject in need thereof, comprising:

administering an effective amount of a compound of Formula (I), or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition as described herein, to a subject identified as having a CBM complex pathway-associated cancer.

Also provided are methods for treating a MALT1-associated cancer in a subject, comprising administering to a subject identified or diagnosed as having a MALT1-associated cancer an effective amount of a compound of Formula (I), or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition as described herein.

Also provided are methods for treating cancer in a subject in need thereof, comprising:

(a) determining that the cancer is associated with a dysregulation of a MALT1 gene, a