

one example described herein discloses compounds, compositions, and methods for treating cardiovascular, inflammatory, and autoimmune conditions associated with MCP-1 and CCR2.

In one aspect, the present disclosure refers to use of a therapeutically effective amount of a compound selected from:

3-benzyl-5-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
1-benzyl-5-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
4-(3-benzyl-3H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
4-(1-benzyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
3-benzyl-5-(3,5-dimethylisoxazol-4-yl)benzo[d]oxazol-2(3H)-one;
1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazol-4-amine;
1-benzyl-5-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazol-7-amine;
N,1-dibenzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazol-4-amine;
1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
1-benzyl-7-(3,5-dimethylisoxazol-4-yl)-3,4-dihydroquinazolin-2(1H)-one;
4-(1-benzyl-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
4-(1-(cyclopropylmethyl)-2-methyl-4-nitro-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-4-nitro-1H-benzo[d]imidazol-2(3H)-one;
4-amino-1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazol-2(3H)-one;
1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-ethoxy-1H-benzo[d]imidazol-4-amine;
1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-ethyl-4-nitro-1H-benzo[d]imidazol-2-amine;
1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N2-ethyl-1H-benzo[d]imidazole-2,4-diamine;
1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-oxo-2,3-dihydro-1H-benzo[d]imidazole-4-carboxamide;
4-(aminomethyl)-1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazol-2(3H)-one;
4-(3-benzyl-3H-imidazo[4,5-b]pyridin-5-yl)-3,5-dimethylisoxazole;
6-(3,5-dimethylisoxazol-4-yl)-1-(4-fluorobenzyl)-1H-benzo[d]imidazol-4-amine;
6-(3,5-dimethylisoxazol-4-yl)-1-(4-fluorobenzyl)-N-methyl-1H-benzo[d]imidazol-4-amine;
6-(3,5-dimethylisoxazol-4-yl)-1-(4-fluorobenzyl)-N,N-dimethyl-1H-benzo[d]imidazol-4-amine;
3,5-dimethyl-4-(1-(1-phenylethyl)-1H-imidazo[4,5-b]pyridin-6-yl)isoxazole;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-c]pyridin-4-amine;
 4-(1-benzyl-3-bromo-1H-pyrrolo[3,2-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-pyrrolo[3,2-b]pyridine-3-carbaldehyde;
 1-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-pyrrolo[3,2-b]pyridin-3-yl)ethanone;
 4-(1-benzyl-3-nitro-1H-pyrrolo[3,2-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(3-(4-chlorobenzyl)-3H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(3-(4-fluorobenzyl)-3H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-(4-fluorobenzyl)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 3,5-dimethyl-4-(3-(pyridin-2-ylmethyl)-3H-imidazo[4,5-b]pyridin-6-yl)isoxazole;
 4-(1-(4-fluorobenzyl)-1H-pyrrolo[3,2-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-(4-fluorobenzyl)-1H-pyrrolo[2,3-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(5-(4-fluorobenzyl)-5H-pyrrolo[2,3-b]pyrazin-3-yl)-3,5-dimethylisoxazole;
 4-(1-(4-fluorobenzyl)-1H-pyrazolo[4,3-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 6-(3,5-dimethylisoxazol-4-yl)-1-(4-fluorobenzyl)-1H-pyrrolo[2,3-b]pyridin-4-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-indazol-4-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-amine;
 3-((5-(3,5-dimethylisoxazol-4-yl)-1H-pyrrolo[3,2-b]pyridin-3-yl)amino)benzonitrile;
 4-(1-(4-fluorobenzyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-(2,4-dichlorobenzyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-(4-methoxybenzyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-(cyclopropylmethyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 N-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-yl)acetamide;
 N-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-yl)ethanesulfonamide;
 4-(1-benzyl-4-methoxy-2-methyl-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 7-amino-3-benzyl-5-(3,5-dimethylisoxazol-4-yl)benzo[d]oxazol-2(3H)-one;
 3,5-dimethyl-4-(2-methyl-1-(pyridin-3-ylmethyl)-1H-imidazo[4,5-b]pyridin-6-yl)isoxazole;
 3,5-dimethyl-4-(2-methyl-1-(thiophen-2-ylmethyl)-1H-imidazo[4,5-b]pyridin-6-yl)isoxazole;

4-(1-benzyl-1H-pyrrolo[3,2-b]pyridin-6-yl)-3,5-dimethylisoxazole;

1-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-pyrrolo[3,2-b]pyridin-3-yl)-N,N-dimethylmethanamine;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-pyrrolo[2,3-b]pyridin-4-amine;

3,5-dimethyl-4-(2-methyl-1-(pyridin-4-ylmethyl)-1H-imidazo[4,5-b]pyridin-6-yl)isoxazole;

1-(cyclopropylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-amine;

3,5-dimethyl-4-(2-methyl-1-((5-methylthiophen-2-yl)methyl)-1H-imidazo[4,5-b]pyridin-6-yl)isoxazole;

4-(1-((5-chlorothiophen-2-yl)methyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;

5-((6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-imidazo[4,5-b]pyridin-1-yl)methyl)thiophene-2-carbonitrile;

1-benzyl-6-(1,4-dimethyl-1H-pyrazol-5-yl)-2-methyl-1H-benzo[d]imidazol-4-amine;

4-(1-(4-chlorobenzyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;

4-((6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-imidazo[4,5-b]pyridin-1-yl)methyl)phenol;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazole-4-carbonitrile;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-oxo-2,3-dihydro-1H-benzo[d]imidazole-4-carbonitrile;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-morpholino-1H-benzo[d]imidazol-4-amine;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-pyrrolo[3,2-b]pyridine-3-carbonitrile;

4-(1-benzyl-3-chloro-1H-pyrrolo[3,2-b]pyridin-6-yl)-3,5-dimethylisoxazole;

4-amino-1-(4-chlorobenzyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazol-2(3H)-one;

1-(4-chlorobenzyl)-6-(3,5-dimethylisoxazol-4-yl)-4-nitro-1H-benzo[d]imidazol-2(3H)-one;

4-(1-benzyl-1H-pyrazolo[4,3-b]pyridin-6-yl)-3,5-dimethylisoxazole;

4-(1-(4-chlorobenzyl)-1H-pyrazolo[4,3-b]pyridin-6-yl)-3,5-dimethylisoxazole;

1-benzyl-2-methyl-6-(1-methyl-1H-pyrazol-5-yl)-1H-benzo[d]imidazol-4-amine;

4-(1-(3,4-dichlorobenzyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;

6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1-(1-phenylethyl)-1H-benzo[d]imidazol-4-amine;

2-(azetidin-1-yl)-1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazol-4-amine;

3,5-dimethyl-4-(1-(thiophen-3-ylmethyl)-1H-pyrazolo[4,3-b]pyridin-6-yl)isoxazole;

N-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-pyrrolo[3,2-b]pyridin-3-yl)acetamide;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-pyrrolo[3,2-b]pyridin-3-amine;
 1-(3,4-dichlorobenzyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 1-(4-chlorobenzyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-indazol-4-amine;
 6-(3,5-dimethylisoxazol-4-yl)-1-(4-methoxybenzyl)-4-nitro-1H-benzo[d]imidazol-2(3H)-one;
 4-amino-6-(3,5-dimethylisoxazol-4-yl)-1-(4-methoxybenzyl)-1H-benzo[d]imidazol-2(3H)-one;
 1-(4-chlorobenzyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 6-(3,5-dimethylisoxazol-4-yl)-1-(thiophen-2-ylmethyl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-ethyl-1H-imidazo[4,5-b]pyridin-2-amine;
 3,5-dimethyl-4-(2-methyl-1-(1-phenylethyl)-1H-imidazo[4,5-b]pyridin-6-yl)isoxazole;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N2-(tetrahydro-2H-pyran-4-yl)-1H-benzo[d]imidazole-2,4-diamine;
 6-(3,5-dimethylisoxazol-4-yl)-4-nitro-1-(1-phenylethyl)-1H-benzo[d]imidazol-2(3H)-one;
 N-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-oxo-2,3-dihydro-1H-benzo[d]imidazol-4-yl)acetamide;
 6-(3,5-dimethylisoxazol-4-yl)-1-(1-phenylethyl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 6-(3,5-dimethylisoxazol-4-yl)-N-ethyl-1-(1-phenylethyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 4-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)morpholine;
 4-amino-6-(3,5-dimethylisoxazol-4-yl)-1-(1-phenylethyl)-1H-benzo[d]imidazol-2(3H)-one;
 4-(1-(cyclobutylmethyl)-2-methyl-4-nitro-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 4-(1-(cyclopentylmethyl)-2-methyl-4-nitro-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 1-(cyclopropylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 N-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-(ethylamino)-1H-benzo[d]imidazol-4-yl)acetamide;
 N-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-ethoxy-1H-benzo[d]imidazol-4-yl)acetamide;
 4-(1-benzyl-4-bromo-2-methyl-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 3-benzyl-5-(3,5-dimethylisoxazol-4-yl)-1-ethyl-1H-benzo[d]imidazol-2(3H)-one;
 4-(2-(azetidin-1-yl)-1-benzyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 1-((5-chlorothiophen-2-yl)methyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 (S)-3,5-dimethyl-4-(2-methyl-4-nitro-1-(1-phenylethyl)-1H-benzo[d]imidazol-6-yl)isoxazole;
 (R)-3,5-dimethyl-4-(2-methyl-4-nitro-1-(1-phenylethyl)-1H-benzo[d]imidazol-6-yl)isoxazole;

6-(3,5-dimethylisoxazol-4-yl)-N-ethyl-4-nitro-1-(1-phenylethyl)-1H-benzo[d]imidazol-2-amine;
 4-(1-benzyl-2-ethyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-amino-6-(3,5-dimethylisoxazol-4-yl)-1-(4-hydroxybenzyl)-1H-benzo[d]imidazol-2(3H)-one;
 N-(2-(azetidin-1-yl)-1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazol-4-yl)acetamide;
 1-(cyclopropylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-N-ethyl-1H-imidazo[4,5-b]pyridin-2-amine;
 1-(cyclobutylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-amine;
 1-(cyclopentylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-amine;
 6-(3,5-dimethylisoxazol-4-yl)-N2-ethyl-1-(1-phenylethyl)-1H-benzo[d]imidazole-2,4-diamine;
 4-(1-benzyl-4-nitro-2-(pyrrolidin-1-yl)-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 4-(1-benzyl-2-(4-methylpiperazin-1-yl)-4-nitro-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(2-methoxyethyl)-4-nitro-1H-benzo[d]imidazol-2-amine;
 4-(1-benzyl-2-cyclopropyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N2-(2-methoxyethyl)-1H-benzo[d]imidazole-2,4-diamine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-(pyrrolidin-1-yl)-1H-benzo[d]imidazol-4-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-(4-methylpiperazin-1-yl)-1H-benzo[d]imidazol-4-amine;
 1-benzyl-N6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazole-4,6-diamine;
 (S)-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1-(1-phenylethyl)-1H-benzo[d]imidazol-4-amine;
 (R)-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1-(1-phenylethyl)-1H-benzo[d]imidazol-4-amine;
 1-(cyclopropylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-4-nitro-1H-benzo[d]imidazol-2(3H)-one;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-methyl-1H-imidazo[4,5-b]pyridin-2-amine;
 N,1-dibenzyl-6-(3,5-dimethylisoxazol-4-yl)-4-nitro-1H-benzo[d]imidazol-2-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-4-nitro-N-(pyridin-3-ylmethyl)-1H-benzo[d]imidazol-2-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-methyl-4-nitro-1H-benzo[d]imidazol-2-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-3-methyl-4-nitro-1H-benzo[d]imidazol-2(3H)-one;
 N2,1-dibenzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazole-2,4-diamine;
 N,1-dibenzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;
 4-benzyl-6-(3,5-dimethylisoxazol-4-yl)-3,4-dihydroquinoxalin-2(1H)-one;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N2-(pyridin-3-ylmethyl)-1H-benzo[d]imidazole-2,4-diamine;
 4-(1-benzyl-4-fluoro-2-methyl-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 1-(cyclopropylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-N-ethyl-4-nitro-1H-benzo[d]imidazol-2-amine;
 1-(cyclopropylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-N2-ethyl-1H-benzo[d]imidazole-2,4-diamine;
 4-amino-1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-3-methyl-1H-benzo[d]imidazol-2(3H)-one;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-4-fluoro-1H-benzo[d]imidazol-2(3H)-one;
 N-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-3-methyl-2-oxo-2,3-dihydro-1H-benzo[d]imidazol-4-yl)acetamide;
 4-(1-benzyl-2-(4-methylpiperazin-1-yl)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-benzyl-6-(1-methyl-1H-pyrazol-5-yl)-3,4-dihydroquinoxalin-2(1H)-one;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(2-methoxyethyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 4-(1-benzyl-2-methyl-4-(methylsulfonyl)-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(pyridin-4-ylmethyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(tetrahydro-2H-pyran-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;
 1-benzyl-6-(1-methyl-1H-pyrazol-5-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 (S)-6-(3,5-dimethylisoxazol-4-yl)-4-nitro-1-(1-phenylethyl)-1H-benzo[d]imidazol-2(3H)-one;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-ol;
 (R)-4-benzyl-6-(3,5-dimethylisoxazol-4-yl)-3-methyl-3,4-dihydroquinoxalin-2(1H)-one;
 4-(1-benzyl-6-(1-methyl-1H-pyrazol-5-yl)-1H-imidazo[4,5-b]pyridin-2-yl)morpholine;
 1-benzyl-6-(1-methyl-1H-pyrazol-5-yl)-N-(tetrahydro-2H-pyran-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;
 4-amino-1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazole-2(3H)-thione;
 (S)-4-amino-6-(3,5-dimethylisoxazol-4-yl)-1-(1-phenylethyl)-1H-benzo[d]imidazol-2(3H)-one;
 (R)-4-amino-6-(3,5-dimethylisoxazol-4-yl)-1-(1-phenylethyl)-1H-benzo[d]imidazol-2(3H)-one;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-7-methyl-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 4-(1-benzyl-2,7-dimethyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-yl)morpholine;
 1-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-yl)azetidin-2-one;

1-benzyl-2-methyl-6-(1,3,5-trimethyl-1H-pyrazol-4-yl)-1H-benzo[d]imidazol-4-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(pyridin-3-ylmethyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 4-(4-bromo-2-methyl-1-(3-phenylpropyl)-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 4-(7-bromo-2-methyl-1-(3-phenylpropyl)-1H-benzo[d]imidazol-5-yl)-3,5-dimethylisoxazole;
 4-(4-bromo-2-methyl-1-(2-phenoxyethyl)-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 4-(7-bromo-2-methyl-1-(2-phenoxyethyl)-1H-benzo[d]imidazol-5-yl)-3,5-dimethylisoxazole;
 4-(1-(cyclohexylmethyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-(cyclopentylmethyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-(cyclobutylmethyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(pyridin-2-ylmethyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 4-(1-benzyl-2-(pyrrolidin-1-yl)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 2-((1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)amino)ethanol;
 1-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-yl)azetidin-3-ol;
 1-benzyl-3-methyl-6-(1-methyl-1H-pyrazol-5-yl)-4-nitro-1H-benzo[d]imidazol-2(3H)-one;
 4-amino-1-benzyl-3-methyl-6-(1-methyl-1H-pyrazol-5-yl)-1H-benzo[d]imidazol-2(3H)-one;
 1-benzyl-2-methyl-6-(5-methylisoxazol-4-yl)-1H-benzo[d]imidazol-4-amine;
 1-(cyclopentylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 1-(cyclobutylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 N-(1-benzyl-3-methyl-6-(1-methyl-1H-pyrazol-5-yl)-2-oxo-2,3-dihydro-1H-benzo[d]imidazol-4-yl)acetamide;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(4-methoxybenzyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 4-((1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)amino)cyclohexanol;
 4-(1-(cyclopentylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)morpholine;
 4-(2-(azetidin-1-yl)-1-(cyclopentylmethyl)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-(cyclobutylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)morpholine;
 4-(2-(azetidin-1-yl)-1-(cyclobutylmethyl)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 N1-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)-N2,N2-dimethylethane-1,2-diamine;

4-(1-benzyl-2-(piperazin-1-yl)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;

1-benzyl-N-cyclopentyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(2-morpholinoethyl)-1H-imidazo[4,5-b]pyridin-2-amine;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;

3-(((1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)amino)methyl)benzonitrile;

(R)-6-(3,5-dimethylisoxazol-4-yl)-1-(1-phenylethyl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;

(S)-6-(3,5-dimethylisoxazol-4-yl)-1-(1-phenylethyl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;

4-(1-benzyl-2-(tetrahydro-2H-pyran-4-yl)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-methyl-1H-imidazo[4,5-b]pyridine-2-carboxamide;

1-(cyclopentylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-N-(tetrahydro-2H-pyran-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;

1-(cyclobutylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-N-(tetrahydro-2H-pyran-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;

N1-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)cyclohexane-1,4-diamine;

1-benzyl-N-(cyclohexylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(3-methoxypropyl)-1H-imidazo[4,5-b]pyridin-2-amine;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(oxetan-3-yl)-1H-imidazo[4,5-b]pyridin-2-amine;

6-(3,5-dimethylisoxazol-4-yl)-1-(4-fluorobenzyl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(pyrazin-2-ylmethyl)-1H-imidazo[4,5-b]pyridin-2-amine;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-((tetrahydro-2H-pyran-4-yl)methyl)-1H-imidazo[4,5-b]pyridin-2-amine;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(2-(4-methylpiperazin-1-yl)ethyl)-1H-imidazo[4,5-b]pyridin-2-amine;

6-(3,5-dimethylisoxazol-4-yl)-1-(4-fluorobenzyl)-N-methyl-1H-imidazo[4,5-b]pyridin-2-amine;

1-(4-chlorobenzyl)-6-(3,5-dimethylisoxazol-4-yl)-N-methyl-1H-imidazo[4,5-b]pyridin-2-amine;

1-benzyl-N-cyclohexyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(1-methylpiperidin-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;

4-(1-benzyl-2-(pyridin-3-yloxy)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;

1-((1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)amino)-2-methylpropan-2-ol;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(2-(pyrrolidin-1-yl)ethyl)-1H-imidazo[4,5-b]pyridin-2-amine;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(2-(piperidin-1-yl)ethyl)-1H-imidazo[4,5-b]pyridin-2-amine;

(R)-6-(3,5-dimethylisoxazol-4-yl)-4-nitro-1-(1-phenylethyl)-1H-benzo[d]imidazol-2(3H)-one;

4-(1-benzyl-7-methoxy-2-(trifluoromethyl)-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(thiazol-2-ylmethyl)-1H-imidazo[4,5-b]pyridin-2-amine;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazole-2-carboximidamide;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazole-2-carboxamide;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-((1-methylpiperidin-4-yl)methyl)-1H-imidazo[4,5-b]pyridin-2-amine;

1-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)azetidin-3-ol;

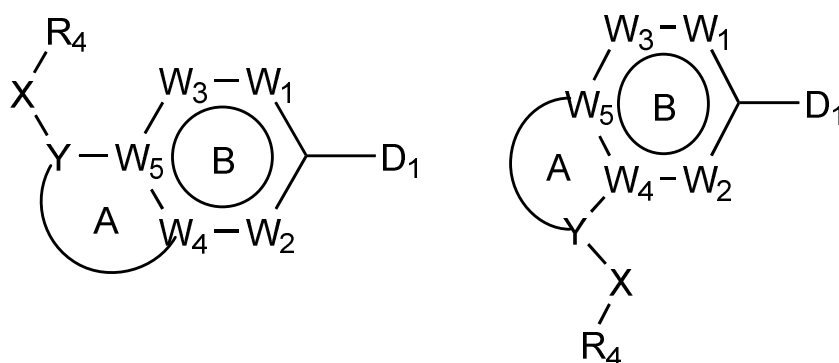
4-(1-benzyl-2-(pyridin-4-yloxy)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(pyridin-3-yl)-1H-benzo[d]imidazol-2-amine;

3-(1-benzyl-1H-benzo[d]imidazol-6-yl)-4-ethyl-1H-1,2,4-triazol-5(4H)-one; and

stereoisomers, tautomers, pharmaceutically acceptable salts, and hydrates thereof for the manufacture of a medicament effective in treating a cancer associated with bromodomain and extra terminal domain (BET) proteins by inhibiting a BET protein function.

[027] Accordingly, the disclosure describes compounds that are useful for inhibition of BET protein function by binding to bromodomains, pharmaceutical compositions comprising one or more of those compounds, and use of these compounds or compositions in the treatment and prevention of diseases and conditions, including, but not limited to, cancer, autoimmune, and cardiovascular diseases. The compounds of the disclosure are defined by Formula Ia or Formula IIa:



Formula Ia

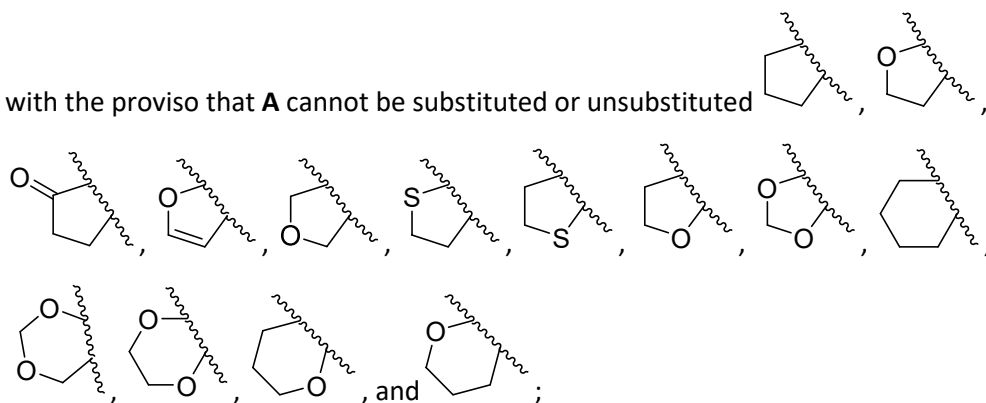
Formula IIa

Formula IIa

or are stereoisomers, tautomers, pharmaceutically acceptable salts, or hydrates thereof, wherein:

A is selected from 5- or 6-membered monocyclic heterocycles fused to ring **B**;

with the proviso that **A** cannot be substituted or unsubstituted



B is a six-membered aromatic carbocycle or heterocycle;

Y is selected from N, C, and CH;

$\mathbf{W}_1$ is selected from $\mathbf{N}$ and $\mathbf{CR}_1$;

W_2 is selected from N and CR_2 ;

W_3 is selected from N and CR_3 ;

W₄ and **W₅** are independently selected from N, CH, and C or alternatively, **W₄** and **W₅** are both C (see, e.g., Formula Ib and Formula IIb below);

$\mathbf{W}_1$, $\mathbf{W}_2$, and $\mathbf{W}_3$ may be the same or different from each other;

What is claimed is:

1. Use of a therapeutically effective amount of a compound selected from:

3-benzyl-5-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
1-benzyl-5-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
4-(3-benzyl-3H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
4-(1-benzyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
3-benzyl-5-(3,5-dimethylisoxazol-4-yl)benzo[d]oxazol-2(3H)-one;
1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazol-4-amine;
1-benzyl-5-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazol-7-amine;
N,1-dibenzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazol-4-amine;
1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
1-benzyl-7-(3,5-dimethylisoxazol-4-yl)-3,4-dihydroquinazolin-2(1H)-one;
4-(1-benzyl-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
4-(1-(cyclopropylmethyl)-2-methyl-4-nitro-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-4-nitro-1H-benzo[d]imidazol-2(3H)-one;
4-amino-1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazol-2(3H)-one;
1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-ethoxy-1H-benzo[d]imidazol-4-amine;
1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-ethyl-4-nitro-1H-benzo[d]imidazol-2-amine;
1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N2-ethyl-1H-benzo[d]imidazole-2,4-diamine;
1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-oxo-2,3-dihydro-1H-benzo[d]imidazole-4-carboxamide;
4-(aminomethyl)-1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazol-2(3H)-one;
4-(3-benzyl-3H-imidazo[4,5-b]pyridin-5-yl)-3,5-dimethylisoxazole;
6-(3,5-dimethylisoxazol-4-yl)-1-(4-fluorobenzyl)-1H-benzo[d]imidazol-4-amine;
6-(3,5-dimethylisoxazol-4-yl)-1-(4-fluorobenzyl)-N-methyl-1H-benzo[d]imidazol-4-amine;
6-(3,5-dimethylisoxazol-4-yl)-1-(4-fluorobenzyl)-N,N-dimethyl-1H-benzo[d]imidazol-4-amine;
3,5-dimethyl-4-(1-(1-phenylethyl)-1H-imidazo[4,5-b]pyridin-6-yl)isoxazole;
1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-c]pyridin-4-amine;

4-(1-benzyl-3-bromo-1H-pyrrolo[3,2-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-pyrrolo[3,2-b]pyridine-3-carbaldehyde;
 1-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-pyrrolo[3,2-b]pyridin-3-yl)ethanone;
 4-(1-benzyl-3-nitro-1H-pyrrolo[3,2-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(3-(4-chlorobenzyl)-3H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(3-(4-fluorobenzyl)-3H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-(4-fluorobenzyl)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 3,5-dimethyl-4-(3-(pyridin-2-ylmethyl)-3H-imidazo[4,5-b]pyridin-6-yl)isoxazole;
 4-(1-(4-fluorobenzyl)-1H-pyrrolo[3,2-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-(4-fluorobenzyl)-1H-pyrrolo[2,3-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(5-(4-fluorobenzyl)-5H-pyrrolo[2,3-b]pyrazin-3-yl)-3,5-dimethylisoxazole;
 4-(1-(4-fluorobenzyl)-1H-pyrazolo[4,3-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 6-(3,5-dimethylisoxazol-4-yl)-1-(4-fluorobenzyl)-1H-pyrrolo[2,3-b]pyridin-4-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-indazol-4-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-amine;
 3-((5-(3,5-dimethylisoxazol-4-yl)-1H-pyrrolo[3,2-b]pyridin-3-yl)amino)benzonitrile;
 4-(1-(4-fluorobenzyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-(2,4-dichlorobenzyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-(4-methoxybenzyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-(cyclopropylmethyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 N-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-yl)acetamide;
 N-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-yl)ethanesulfonamide;
 4-(1-benzyl-4-methoxy-2-methyl-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 7-amino-3-benzyl-5-(3,5-dimethylisoxazol-4-yl)benzo[d]oxazol-2(3H)-one;
 3,5-dimethyl-4-(2-methyl-1-(pyridin-3-ylmethyl)-1H-imidazo[4,5-b]pyridin-6-yl)isoxazole;
 3,5-dimethyl-4-(2-methyl-1-(thiophen-2-ylmethyl)-1H-imidazo[4,5-b]pyridin-6-yl)isoxazole;
 4-(1-benzyl-1H-pyrrolo[3,2-b]pyridin-6-yl)-3,5-dimethylisoxazole;

1-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-pyrrolo[3,2-b]pyridin-3-yl)-N,N-dimethylmethanamine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-pyrrolo[2,3-b]pyridin-4-amine;
 3,5-dimethyl-4-(2-methyl-1-(pyridin-4-ylmethyl)-1H-imidazo[4,5-b]pyridin-6-yl)isoxazole;
 1-(cyclopropylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-amine;
 3,5-dimethyl-4-(2-methyl-1-((5-methylthiophen-2-yl)methyl)-1H-imidazo[4,5-b]pyridin-6-yl)isoxazole;
 4-(1-((5-chlorothiophen-2-yl)methyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 5-((6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-imidazo[4,5-b]pyridin-1-yl)methyl)thiophene-2-carbonitrile;
 1-benzyl-6-(1,4-dimethyl-1H-pyrazol-5-yl)-2-methyl-1H-benzo[d]imidazol-4-amine;
 4-(1-(4-chlorobenzyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-((6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-imidazo[4,5-b]pyridin-1-yl)methyl)phenol;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazole-4-carbonitrile;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-oxo-2,3-dihydro-1H-benzo[d]imidazole-4-carbonitrile;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-morpholino-1H-benzo[d]imidazol-4-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-pyrrolo[3,2-b]pyridine-3-carbonitrile;
 4-(1-benzyl-3-chloro-1H-pyrrolo[3,2-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-amino-1-(4-chlorobenzyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazol-2(3H)-one;
 1-(4-chlorobenzyl)-6-(3,5-dimethylisoxazol-4-yl)-4-nitro-1H-benzo[d]imidazol-2(3H)-one;
 4-(1-benzyl-1H-pyrazolo[4,3-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-(4-chlorobenzyl)-1H-pyrazolo[4,3-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 1-benzyl-2-methyl-6-(1-methyl-1H-pyrazol-5-yl)-1H-benzo[d]imidazol-4-amine;
 4-(1-(3,4-dichlorobenzyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1-(1-phenylethyl)-1H-benzo[d]imidazol-4-amine;
 2-(azetidin-1-yl)-1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazol-4-amine;
 3,5-dimethyl-4-(1-(thiophen-3-ylmethyl)-1H-pyrazolo[4,3-b]pyridin-6-yl)isoxazole;
 N-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-pyrrolo[3,2-b]pyridin-3-yl)acetamide;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-pyrrolo[3,2-b]pyridin-3-amine;

1-(3,4-dichlorobenzyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 1-(4-chlorobenzyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-indazol-4-amine;
 6-(3,5-dimethylisoxazol-4-yl)-1-(4-methoxybenzyl)-4-nitro-1H-benzo[d]imidazol-2(3H)-one;
 4-amino-6-(3,5-dimethylisoxazol-4-yl)-1-(4-methoxybenzyl)-1H-benzo[d]imidazol-2(3H)-one;
 1-(4-chlorobenzyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 6-(3,5-dimethylisoxazol-4-yl)-1-(thiophen-2-ylmethyl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-ethyl-1H-imidazo[4,5-b]pyridin-2-amine;
 3,5-dimethyl-4-(2-methyl-1-(1-phenylethyl)-1H-imidazo[4,5-b]pyridin-6-yl)isoxazole;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N2-(tetrahydro-2H-pyran-4-yl)-1H-benzo[d]imidazole-2,4-diamine;
 6-(3,5-dimethylisoxazol-4-yl)-4-nitro-1-(1-phenylethyl)-1H-benzo[d]imidazol-2(3H)-one;
 N-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-oxo-2,3-dihydro-1H-benzo[d]imidazol-4-yl)acetamide;
 6-(3,5-dimethylisoxazol-4-yl)-1-(1-phenylethyl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 6-(3,5-dimethylisoxazol-4-yl)-N-ethyl-1-(1-phenylethyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 4-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)morpholine;
 4-amino-6-(3,5-dimethylisoxazol-4-yl)-1-(1-phenylethyl)-1H-benzo[d]imidazol-2(3H)-one;
 4-(1-(cyclobutylmethyl)-2-methyl-4-nitro-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 4-(1-(cyclopentylmethyl)-2-methyl-4-nitro-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 1-(cyclopropylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 N-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-(ethylamino)-1H-benzo[d]imidazol-4-yl)acetamide;
 N-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-ethoxy-1H-benzo[d]imidazol-4-yl)acetamide;
 4-(1-benzyl-4-bromo-2-methyl-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 3-benzyl-5-(3,5-dimethylisoxazol-4-yl)-1-ethyl-1H-benzo[d]imidazol-2(3H)-one;
 4-(2-(azetidin-1-yl)-1-benzyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 1-((5-chlorothiophen-2-yl)methyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 (S)-3,5-dimethyl-4-(2-methyl-4-nitro-1-(1-phenylethyl)-1H-benzo[d]imidazol-6-yl)isoxazole;
 (R)-3,5-dimethyl-4-(2-methyl-4-nitro-1-(1-phenylethyl)-1H-benzo[d]imidazol-6-yl)isoxazole;
 6-(3,5-dimethylisoxazol-4-yl)-N-ethyl-4-nitro-1-(1-phenylethyl)-1H-benzo[d]imidazol-2-amine;

4-(1-benzyl-2-ethyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-amino-6-(3,5-dimethylisoxazol-4-yl)-1-(4-hydroxybenzyl)-1H-benzo[d]imidazol-2(3H)-one;
 N-(2-(azetidin-1-yl)-1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazol-4-yl)acetamide;
 1-(cyclopropylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-N-ethyl-1H-imidazo[4,5-b]pyridin-2-amine;
 1-(cyclobutylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-amine;
 1-(cyclopentylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-amine;
 6-(3,5-dimethylisoxazol-4-yl)-N2-ethyl-1-(1-phenylethyl)-1H-benzo[d]imidazole-2,4-diamine;
 4-(1-benzyl-4-nitro-2-(pyrrolidin-1-yl)-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 4-(1-benzyl-2-(4-methylpiperazin-1-yl)-4-nitro-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(2-methoxyethyl)-4-nitro-1H-benzo[d]imidazol-2-amine;
 4-(1-benzyl-2-cyclopropyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N2-(2-methoxyethyl)-1H-benzo[d]imidazole-2,4-diamine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-(pyrrolidin-1-yl)-1H-benzo[d]imidazol-4-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-(4-methylpiperazin-1-yl)-1H-benzo[d]imidazol-4-amine;
 1-benzyl-N6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazole-4,6-diamine;
 (S)-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1-(1-phenylethyl)-1H-benzo[d]imidazol-4-amine;
 (R)-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1-(1-phenylethyl)-1H-benzo[d]imidazol-4-amine;
 1-(cyclopropylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-4-nitro-1H-benzo[d]imidazol-2(3H)-one;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-methyl-1H-imidazo[4,5-b]pyridin-2-amine;
 N,1-dibenzyl-6-(3,5-dimethylisoxazol-4-yl)-4-nitro-1H-benzo[d]imidazol-2-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-4-nitro-N-(pyridin-3-ylmethyl)-1H-benzo[d]imidazol-2-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-methyl-4-nitro-1H-benzo[d]imidazol-2-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-3-methyl-4-nitro-1H-benzo[d]imidazol-2(3H)-one;
 N2,1-dibenzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazole-2,4-diamine;
 N,1-dibenzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;
 4-benzyl-6-(3,5-dimethylisoxazol-4-yl)-3,4-dihydroquinoxalin-2(1H)-one;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N2-(pyridin-3-ylmethyl)-1H-benzo[d]imidazole-2,4-diamine;

4-(1-benzyl-4-fluoro-2-methyl-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;

1-(cyclopropylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-N-ethyl-4-nitro-1H-benzo[d]imidazol-2-amine;

1-(cyclopropylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-N2-ethyl-1H-benzo[d]imidazole-2,4-diamine;

4-amino-1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-3-methyl-1H-benzo[d]imidazol-2(3H)-one;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-4-fluoro-1H-benzo[d]imidazol-2(3H)-one;

N-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-3-methyl-2-oxo-2,3-dihydro-1H-benzo[d]imidazol-4-yl)acetamide;

4-(1-benzyl-2-(4-methylpiperazin-1-yl)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;

4-benzyl-6-(1-methyl-1H-pyrazol-5-yl)-3,4-dihydroquinoxalin-2(1H)-one;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(2-methoxyethyl)-1H-imidazo[4,5-b]pyridin-2-amine;

4-(1-benzyl-2-methyl-4-(methylsulfonyl)-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(pyridin-4-ylmethyl)-1H-imidazo[4,5-b]pyridin-2-amine;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(tetrahydro-2H-pyran-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;

1-benzyl-6-(1-methyl-1H-pyrazol-5-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;

(S)-6-(3,5-dimethylisoxazol-4-yl)-4-nitro-1-(1-phenylethyl)-1H-benzo[d]imidazol-2(3H)-one;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-ol;

(R)-4-benzyl-6-(3,5-dimethylisoxazol-4-yl)-3-methyl-3,4-dihydroquinoxalin-2(1H)-one;

4-(1-benzyl-6-(1-methyl-1H-pyrazol-5-yl)-1H-imidazo[4,5-b]pyridin-2-yl)morpholine;

1-benzyl-6-(1-methyl-1H-pyrazol-5-yl)-N-(tetrahydro-2H-pyran-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;

4-amino-1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazole-2(3H)-thione;

(S)-4-amino-6-(3,5-dimethylisoxazol-4-yl)-1-(1-phenylethyl)-1H-benzo[d]imidazol-2(3H)-one;

(R)-4-amino-6-(3,5-dimethylisoxazol-4-yl)-1-(1-phenylethyl)-1H-benzo[d]imidazol-2(3H)-one;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-7-methyl-1H-imidazo[4,5-b]pyridin-2(3H)-one;

4-(1-benzyl-2,7-dimethyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;

4-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-yl)morpholine;

1-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-yl)azetidin-2-one;

1-benzyl-2-methyl-6-(1,3,5-trimethyl-1H-pyrazol-4-yl)-1H-benzo[d]imidazol-4-amine;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(pyridin-3-ylmethyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 4-(4-bromo-2-methyl-1-(3-phenylpropyl)-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 4-(7-bromo-2-methyl-1-(3-phenylpropyl)-1H-benzo[d]imidazol-5-yl)-3,5-dimethylisoxazole;
 4-(4-bromo-2-methyl-1-(2-phenoxyethyl)-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 4-(7-bromo-2-methyl-1-(2-phenoxyethyl)-1H-benzo[d]imidazol-5-yl)-3,5-dimethylisoxazole;
 4-(1-(cyclohexylmethyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-(cyclopentylmethyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-(cyclobutylmethyl)-2-methyl-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(pyridin-2-ylmethyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 4-(1-benzyl-2-(pyrrolidin-1-yl)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 2-((1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)amino)ethanol;
 1-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-2-methyl-1H-benzo[d]imidazol-4-yl)azetidin-3-ol;
 1-benzyl-3-methyl-6-(1-methyl-1H-pyrazol-5-yl)-4-nitro-1H-benzo[d]imidazol-2(3H)-one;
 4-amino-1-benzyl-3-methyl-6-(1-methyl-1H-pyrazol-5-yl)-1H-benzo[d]imidazol-2(3H)-one;
 1-benzyl-2-methyl-6-(5-methylisoxazol-4-yl)-1H-benzo[d]imidazol-4-amine;
 1-(cyclopentylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 1-(cyclobutylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 N-(1-benzyl-3-methyl-6-(1-methyl-1H-pyrazol-5-yl)-2-oxo-2,3-dihydro-1H-benzo[d]imidazol-4-yl)acetamide;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(4-methoxybenzyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 4-((1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)amino)cyclohexanol;
 4-(1-(cyclopentylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)morpholine;
 4-(2-(azetidin-1-yl)-1-(cyclopentylmethyl)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 4-(1-(cyclobutylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)morpholine;
 4-(2-(azetidin-1-yl)-1-(cyclobutylmethyl)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 N1-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)-N2,N2-dimethylethane-1,2-diamine;
 4-(1-benzyl-2-(piperazin-1-yl)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;

1-benzyl-N-cyclopentyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(2-morpholinoethyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;
 3-(((1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)amino)methyl)benzonitrile;
 (R)-6-(3,5-dimethylisoxazol-4-yl)-1-(1-phenylethyl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 (S)-6-(3,5-dimethylisoxazol-4-yl)-1-(1-phenylethyl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 4-(1-benzyl-2-(tetrahydro-2H-pyran-4-yl)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-methyl-1H-imidazo[4,5-b]pyridine-2-carboxamide;
 1-(cyclopentylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-N-(tetrahydro-2H-pyran-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;
 1-(cyclobutylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-N-(tetrahydro-2H-pyran-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;
 N1-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)cyclohexane-1,4-diamine;
 1-benzyl-N-(cyclohexylmethyl)-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(3-methoxypropyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(oxetan-3-yl)-1H-imidazo[4,5-b]pyridin-2-amine;
 6-(3,5-dimethylisoxazol-4-yl)-1-(4-fluorobenzyl)-1H-imidazo[4,5-b]pyridin-2(3H)-one;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(pyrazin-2-ylmethyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-((tetrahydro-2H-pyran-4-yl)methyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(2-(4-methylpiperazin-1-yl)ethyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 6-(3,5-dimethylisoxazol-4-yl)-1-(4-fluorobenzyl)-N-methyl-1H-imidazo[4,5-b]pyridin-2-amine;
 1-(4-chlorobenzyl)-6-(3,5-dimethylisoxazol-4-yl)-N-methyl-1H-imidazo[4,5-b]pyridin-2-amine;
 1-benzyl-N-cyclohexyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(1-methylpiperidin-4-yl)-1H-imidazo[4,5-b]pyridin-2-amine;
 4-(1-benzyl-2-(pyridin-3-yloxy)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 1-(((1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)amino)-2-methylpropan-2-ol;

1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(2-(pyrrolidin-1-yl)ethyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(2-(piperidin-1-yl)ethyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 (R)-6-(3,5-dimethylisoxazol-4-yl)-4-nitro-1-(1-phenylethyl)-1H-benzo[d]imidazol-2(3H)-one;
 4-(1-benzyl-7-methoxy-2-(trifluoromethyl)-1H-benzo[d]imidazol-6-yl)-3,5-dimethylisoxazole;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(thiazol-2-ylmethyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazole-2-carboximidamide;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-benzo[d]imidazole-2-carboxamide;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-((1-methylpiperidin-4-yl)methyl)-1H-imidazo[4,5-b]pyridin-2-amine;
 1-(1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-1H-imidazo[4,5-b]pyridin-2-yl)azetidin-3-ol;
 4-(1-benzyl-2-(pyridin-4-yloxy)-1H-imidazo[4,5-b]pyridin-6-yl)-3,5-dimethylisoxazole;
 1-benzyl-6-(3,5-dimethylisoxazol-4-yl)-N-(pyridin-3-yl)-1H-benzo[d]imidazol-2-amine;
 3-(1-benzyl-1H-benzo[d]imidazol-6-yl)-4-ethyl-1H-1,2,4-triazol-5(4H)-one; and

stereoisomers, tautomers, pharmaceutically acceptable salts, and hydrates thereof for the manufacture of a medicament effective in treating a cancer associated with bromodomain and extra terminal domain (BET) proteins by inhibiting a BET protein function.

2. The use according to claim 1, wherein the compound is to be administered in a pharmaceutical composition that further comprises a pharmaceutically acceptable carrier.

3. The use of claim 1, wherein the cancer is selected from B-acute lymphocytic leukemia, Burkitt's lymphoma, diffuse large cell lymphoma, multiple myeloma, primary plasma cell leukemia, atypical carcinoid lung cancer, bladder cancer, breast cancer, cervix cancer, colon cancer, gastric cancer, glioblastoma, hepatocellular carcinoma, large cell neuroendocrine carcinoma, medulloblastoma, melanoma, nodular melanoma, neuroblastoma, esophageal squamous cell carcinoma, osteosarcoma, ovarian cancer, prostate cancer, renal clear cell carcinoma, retinoblastoma, rhabdomyosarcoma, small cell lung carcinoma, NUT midline carcinoma, B-cell lymphoma, non-small cell lung cancer, head and neck squamous cell carcinoma, chronic lymphocytic leukemia follicular lymphoma, diffuse large B cell lymphoma with germinal center phenotype, Hodgkin's lymphoma, activated anaplastic large cell lymphoma, primary neuroectodermal tumor, pancreatic cancer, adenoid cystic carcinoma, T-cell prolymphocytic leukemia, malignant glioma, Barrett's adenocarcinoma, hepatoma, pro-myelocytic leukemia, and mantle cell lymphoma.

4. The use of claim 1, wherein the cancer:

- i. is associated with overexpression, translocation, amplification, or rearrangement of a myc family oncoprotein that is sensitive to BET inhibition; or
- ii. is associated with overexpression, translocation, amplification, or rearrangement of BET proteins; or
- iii. relies on pTEFb (Cdk9/cyclin T) and BET proteins to regulate oncogenes; or
- iv. is associated with upregulation of BET responsive genes CDK6, Bcl2, TYRO3, MYB, and hTERT; or
- v. is sensitive to effects of BET inhibition; or
- vi. is associated with a virus.

5. The use of claim 1, wherein the cancer is associated with overexpression, translocation, amplification, or rearrangement of a myc family oncoprotein that is sensitive to BET inhibition and is selected from B-acute lymphocytic leukemia, Burkitt's lymphoma, diffuse large cell lymphoma, multiple myeloma, primary plasma cell leukemia, atypical carcinoid lung cancer, bladder cancer, breast cancer, cervix cancer, colon cancer, gastric cancer, glioblastoma, hepatocellular carcinoma, large cell neuroendocrine carcinoma, medulloblastoma, nodular melanoma, superficial spreading melanoma, neuroblastoma, esophageal squamous cell carcinoma, osteosarcoma, ovarian cancer, prostate cancer, renal clear cell carcinoma, retinoblastoma, rhabdomyosarcoma, and small cell lung carcinoma.

6. The use of claim 4, wherein the cancer is associated with overexpression, translocation, amplification, or rearrangement of BET proteins and selected from NUT midline carcinoma, B-cell lymphoma, non-small cell lung cancer, esophageal cancer, head and neck squamous cell carcinoma, and colon cancer.

7. The use of claim 4, wherein the cancer relies on pTEFb (Cdk9/cyclin T) and BET proteins to regulate oncogenes and is selected from chronic lymphocytic leukemia, multiple myeloma, follicular lymphoma, diffuse large B cell lymphoma with germinal center phenotype, Burkitt's lymphoma, Hodgkin's lymphoma, follicular lymphomas, activated anaplastic large cell lymphoma, neuroblastoma, primary neuroectodermal tumor, rhabdomyosarcoma, prostate cancer, and breast cancer.

8. The use of claim 4, wherein the cancer is associated with upregulation of BET responsive genes CDK6, Bcl2, TYRO3, MYB, and/or hTERT and is selected from pancreatic cancer, breast cancer, colon cancer, glioblastoma, adenoid cystic carcinoma, T-cell prolymphocytic leukemia, malignant

glioma, bladder cancer, medulloblastoma, thyroid cancer, melanoma, multiple myeloma, Barrett's adenocarcinoma, hepatoma, prostate cancer, pro-myelocytic leukemia, chronic lymphocytic leukemia, mantle cell lymphoma, diffuse large B-cell lymphoma, small cell lung cancer, and renal carcinoma.

9. The use of claim 4, wherein the cancer is sensitive to effects of BET inhibition and is selected from NUT midline carcinoma (NMV), acute myeloid leukemia (AML), acute B lymphoblastic leukemia (B-ALL), Burkitt's lymphoma, B-cell lymphoma, melanoma, mixed lineage leukemia, multiple myeloma, pro-myelocytic leukemia (PML), non-Hodgkin's lymphoma, neuroblastoma, medulloblastoma, lung carcinoma (NSCLC, SCLC), and colon carcinoma.

10. The use of claim 4, wherein the cancer is selected from acute myeloid leukemia and multiple myeloma.

11. The use of any one of claims 6-10, wherein the compound is to be administered combined with other therapies, chemotherapeutic agents, or antiproliferative agents.

12. The use of claim 11, wherein the chemotherapeutic agent is selected from ABT-737, Azacitidine (Vidaza), AZD1152 (Barasertib), AZD2281 (Olaparib), AZD6244 (Selumetinib), BEZ235, Bleomycin Sulfate, Bortezomib (Velcade), Busulfan (Myleran), Camptothecin, Cisplatin, Cyclophosphamide (Clafen), CYT387, Cytarabine (Ara-C), Dacarbazine, DAPT (GSI-IX), Decitabine, Dexamethasone, Doxorubicin (Adriamycin), Etoposide, Everolimus (RAD001), Flavopiridol (Alvocidib), Ganetespib (STA-9090), Gefitinib (Iressa), Idarubicin, Ifosfamide (Mitoxana), IFNa2a (Roferon A), Melphalan (Alkeran), Methazolastone (temozolomide), Metformin, Mitoxantrone (Novantrone), Paclitaxel, Phenformin, PKC412 (Midostaurin), PLX4032 (Vemurafenib), Pomalidomide (CC-4047), Prednisone (Deltasone), Rapamycin, Revlimid (Lenalidomide), Ruxolitinib (INCB018424), Sorafenib (Nexavar), SU11248 (Sunitinib), SU11274, Vinblastine, Vincristine (Oncovin), Vinorelbine (Navelbine), Vorinostat (SAHA), and WP1130 (Degrasyn).

13. The use of claim 4, wherein the cancer is associated with a virus and the virus is selected from Epstein-Barr virus (EBV), hepatitis B virus (HBV), hepatitis C virus (HCV), Kaposi's sarcoma associated virus (KSHV), human papilloma virus (HPV), Merkel cell polyomavirus, and human cytomegalovirus (CMV).