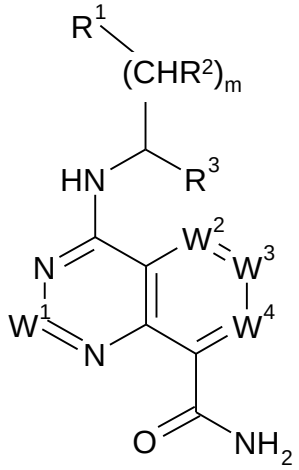
CLAIMS

1. A compound of formula (I)



(I)

wherein

W^1 is CH;

W^2 is N;

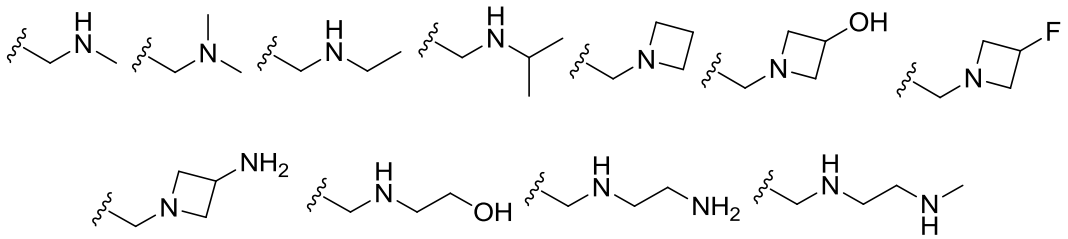
W^3 is CH;

W^4 is CH;

R^1 is Ar or Het^1;

R^2 is Y;

R^3 is H,



or R^2 and R^3 together with the atoms to which each is attached, may form $(CH_2)_n$--NY--$(CH_2)_p$;

each Y is independently H or A;

each A is independently unbranched or branched alkyl having 1-10 C atoms, in which 1-7 H atoms can be replaced independently from one another by Hal;

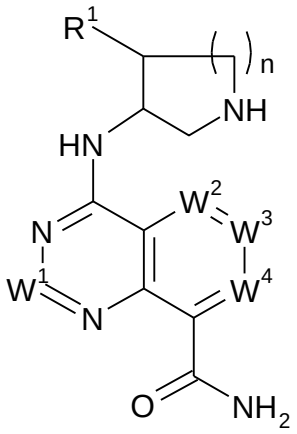
Ar is an unsaturated or aromatic monocyclic or bicyclic carbocycle having 3-10 C atoms, which can be substituted by at least one substituent selected from the group of Hal, A, OY, CN, COY, COOY, CONYY,

NYCOY, NYCONYY, SO_2Y, SO_2NYY, $NYSO_2Y$, NYY, NO_2, OCN, SCN, phenyl which can be substituted by at least one substituent selected from the group of Hal, A, OY, CN, COY, COOY, CONYY, NYCOY, NYCONYY, SO_2Y, SO_2NYY, $NYSO_2Y$, NYY, NO_2, OCN, SCN, SH, and Het^1 which can be substituted by at least one substituent selected from the group of Hal, A, OY, CN, COY, COOY, CONYY, NYCOY, NYCONYY, SO_2Y, SO_2NYY, $NYSO_2Y$, NYY, NO_2, OCN, SCN, and SH; each Het^1 is independently an unsaturated or aromatic monocyclic or bicyclic heterocycle having 2-10 C atoms and 1-4 N, O and/or S atoms, which can be substituted by at least one substituent selected from the group of Hal, A, OY, CN, COY, COOY, CONYY, NYCOY, NYCONYY, SO_2Y, SO_2NYY, $NYSO_2Y$, NYY, NO_2, OCN, SCN, and SH, phenyl which can be substituted by at least one substituent selected from the group of Hal, A, OY, CN, COY, COOY, CONYY, NYCOY, NYCONYY, SO_2Y, SO_2NYY, $NYSO_2Y$, NYY, NO_2, OCN, SCN, and SH, and Het^2 which can be substituted by at least one substituent selected from the group of Hal, A, OY, CN, COY, COOY, CONYY, NYCOY, NYCONYY, SO_2Y, SO_2NYY, $NYSO_2Y$, NYY, NO_2, OCN, SCN, and SH;

Het^2 is a substituted, saturated, unsaturated or aromatic monocyclic 5-6-membered heterocycle having 2-5 C atoms and 1-3 N, O and/or S atoms which can be substituted by at least one substituent selected from the group of Hal, A, OY, CN, COY, COOY, CONYY, NYCOY, NYCONYY, SO_2Y, SO_2NYY, $NYSO_2Y$, NYY, NO_2, OCN, SCN, and SH;

each Hal is independently F, Cl, Br or I; m is 0 or 1; and each of n and p is independently 0, 1, 2 or 3; and/or a physiologically acceptable salt thereof.

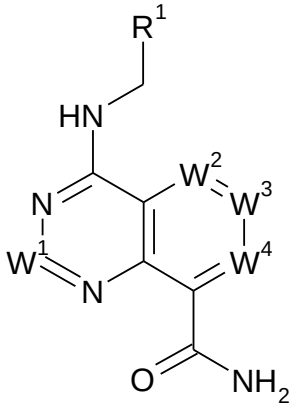
2. The compound according to claim 1, of formula (V):



(V)

and/or physiologically acceptable salts thereof.

3. The compound according to claim 1, of formula (VI):



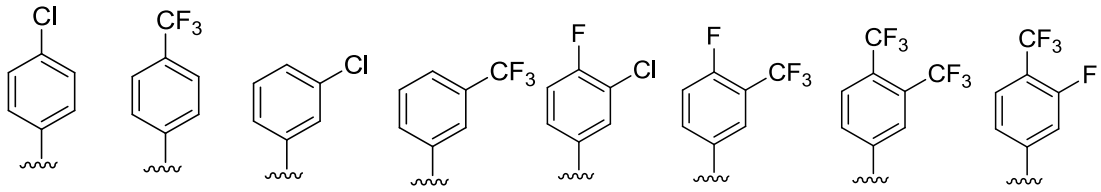
(VI)

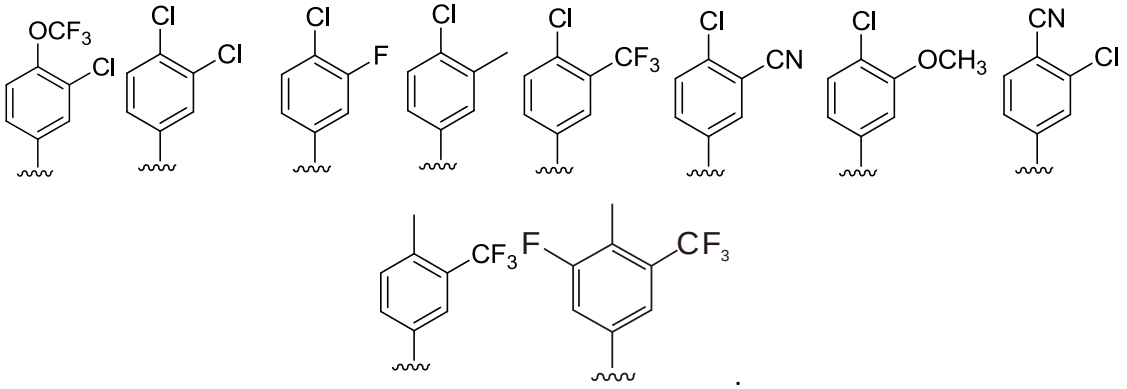
and/or physiologically acceptable salts thereof.

4. The compound according to claim 1, wherein R^1 is Ar, and m is 0.

5. The compound according to claim 4, wherein Ar is phenyl substituted by at least one substituent selected from the group of Cl and CF_3.

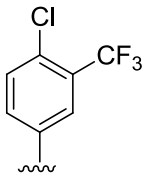
6. The compound according to claim 5, wherein Ar is





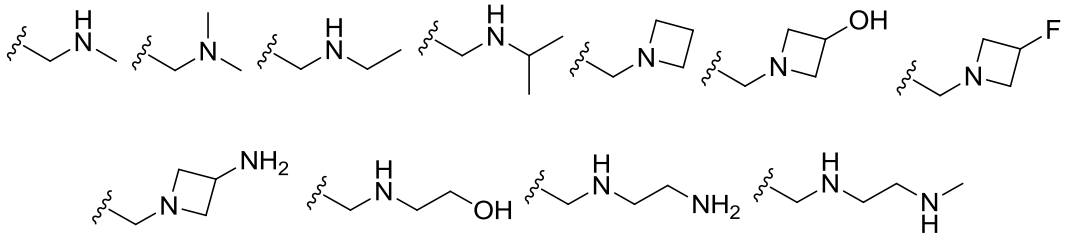
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7. The compound according to claim 6, wherein Ar is

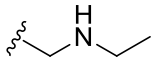


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8. The compound according to claim 4, wherein R^3 is



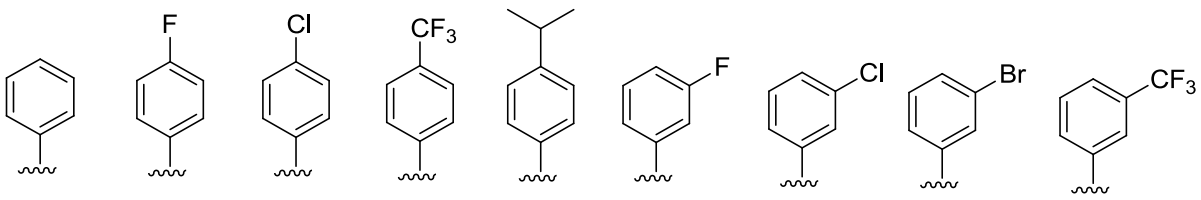
9. The compound according to claim 8, wherein R^3 is

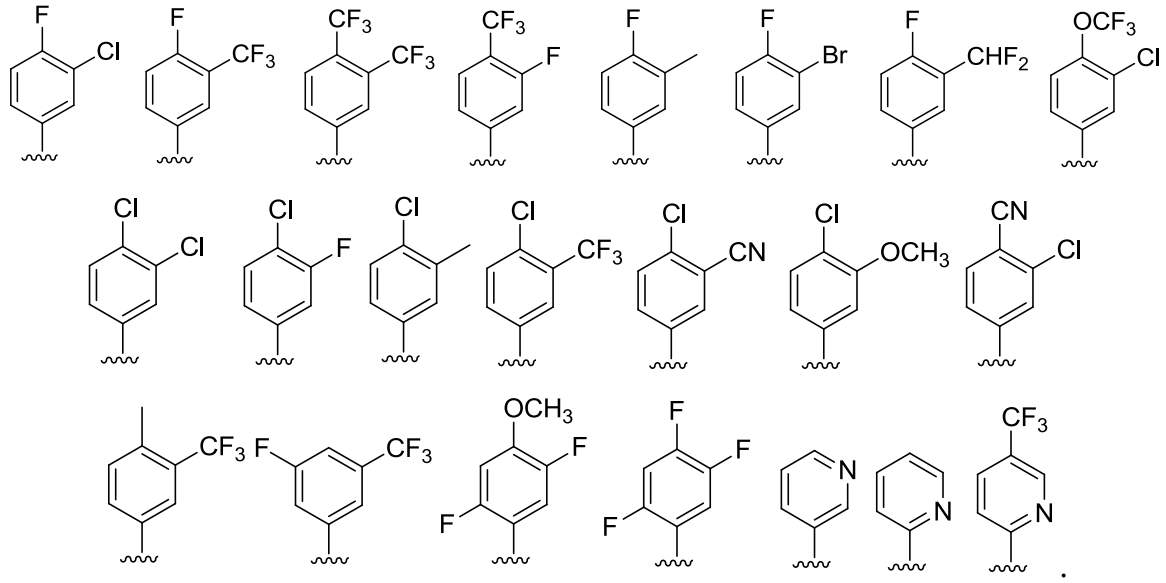


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10. The compound according to claim 1, wherein R^1 is phenyl or pyridyl, each of which is optionally substituted.

11. The compound according to claim 10, wherein R^1 is





12. The compound according to claim 1, which is selected from

4-[4-(3-Chloro-4-fluoro-phenyl)-piperidin-3-ylamino]-pyrido[3,2-d]pyrimidine-8-carboxamide (23)

4-((4-(3-(trifluoromethyl)phenyl)piperidin-3-yl)amino)pyrido[3,2-d]pyrimidine-8-carboxamide (24)

4-((4-(4-(trifluoromethyl)phenyl)piperidin-3-yl)amino)pyrido[3,2-d]pyrimidine-8-carboxamide (25)

4-[(S)-1-(3-Fluoro-4-trifluoromethyl-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (26)

4-[(S)-2-Azetidin-1-yl-1-(4-trifluoromethyl-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (27)

4-[(S)-1-(3-Bromo-4-fluoro-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (28)

4-[(S)-2-Ethylamino-1-(3-fluoro-4-trifluoromethyl-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (29)

4-[(S)-1-(3-Bromo-4-fluoro-phenyl)-2-ethylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (30)

4-[(S)-1-(2,5-Difluoro-4-methoxy-phenyl)-2-ethylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (31)

4-[(S)-1-(2,5-Difluoro-4-methoxy-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (32)

4-[(S)-1-(4-Chloro-3-trifluoromethyl-phenyl)-2-ethylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (33)

4-[(S)-2-Ethylamino-1-(3-fluoro-5-trifluoromethyl-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (34)

4-[(S)-1-(3-Fluoro-5-trifluoromethyl-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (35)

4-[(S)-2-Azetidin-1-yl-1-(4-chloro-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (36)

4-[(S)-2-Azetidin-1-yl-1-(4-isopropyl-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (37)

4-[(S)-2-Methylamino-1-(4-trifluoromethyl-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (38)

4-[(S)-1-(4-Isopropyl-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (39)

4-[(S)-1-(4-Isopropyl-phenyl)-2-methylamino-ethylamino]-pyrido[3,4-d]pyrimidine-8-carboxylic acid amide (40)

4-[(S)-2-Azetidin-1-yl-1-(4-chloro-3-trifluoromethyl-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxamide (41)

4-[(S)-1-(4-Chloro-3-trifluoromethyl-phenyl)-2-methylamino-ethylamino]-pyrido[3,4-d]pyrimidine-8-carboxylic acid amide (42)

4-[(S)-1-(3,4-Bis-trifluoromethyl-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylamide (43)

4-[(S)-1-(4-Chloro-3-methyl-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (44)

4-[(S)-1-(4-Chloro-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (45)

4-[(S)-2-Azetidin-1-yl-1-(4-chloro-3-methyl-phenyl)-ethylamino]-5 pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (46)

4-[(S)-2-Azetidin-1-yl-1-(3-chloro-4-cyano-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (47)

4-[(S)-2-Azetidin-1-yl-1-(3-difluoromethyl-4-fluoro-phenyl)-ethylamino]-pyrido[3,2-10 d]pyrimidine-8-carboxylic acid amide (48)

4-[(S)-1-(4-Fluoro-3-trifluoromethyl-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (49)

4-[(S)-2-Dimethylamino-1-(4-fluoro-3-trifluoromethyl-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (50)

4-[(S)-1-(3-Difluoromethyl-4-fluoro-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (51)

4-[(S)-1-(4-Fluoro-3-trifluoromethyl-phenyl)-2-isopropylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (52)

4-[(S)-1-(4-Chloro-3-fluoro-phenyl)-2-dimethylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-20 carboxylic acid amide (53)

4-[(S)-1-(4-Chloro-3-fluoro-phenyl)-2-isopropylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (54)

4-[(S)-1-(4-Chloro-3-trifluoromethyl-phenyl)-2-isopropylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (55)

4-[(S)-2-Ethylamino-1-(4-fluoro-3-trifluoromethyl-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (56)

4-[(S)-1-(3-Chloro-4-fluoro-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (57)

4-[(S)-2-Ethylamino-1-(2,4,5-trifluoro-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (58)

4-[(S)-1-(3,4-Bis-trifluoromethyl-phenyl)-2-ethylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (59)

4-[(S)-2-Methylamino-1-(2,4,5-trifluoro-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (60)

4-[(S)-1-(3-Chloro-4-fluoro-phenyl)-2-ethylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (61)

4-[(S)-2-Azetidin-1-yl-1-(4-fluoro-3-trifluoromethyl-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (62)

4-[(S)-2-Azetidin-1-yl-1-(3,4-bis-trifluoromethyl-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (63)

4-[(S)-1-(3-Chloro-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (64)

4-[(S)-1-(3-Bromo-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (65)
4-[(S)-1-(3-Fluoro-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (66)
4-[(S)-1-(4-Fluoro-3-methyl-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (67)
4-[(S)-2-Azetidin-1-yl-1-(3-fluoro-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (68)
4-[(S)-1-(4-Chloro-3-trifluoromethyl-phenyl)-2-(3-fluoro-azetidin-1-yl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (69)
4-[(S)-1-(4-Chloro-3-trifluoromethyl-phenyl)-2-(3-hydroxy-azetidin-1-yl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (70)
4-[(R)-2-Azetidin-1-yl-1-(4-chloro-3-trifluoromethyl-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylamide (71)
4-[(S)-1-(4-Chloro-3-trifluoromethyl-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (72)
4-[(S)-2-Azetidin-1-yl-1-(3-chloro4-trifluoromethoxy-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylamide (73)
4-[(S)-1-(3-Chloro-4-trifluoromethoxy-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylamide (74)
4-[(S)-1-(3,4-Dichloro-phenyl)-2-methylamino-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylamide (75)
4-[(S)-2-Methylamino-1-(4-methyl-3-trifluoromethyl-phenyl)-ethylamino]-pyrido[3,2-d]pyrimidine-8-carboxylic acid amide (76).

13. A pharmaceutical composition comprising as active ingredient at least one compound according to claim 1 and/or a physiologically acceptable salt thereof together with pharmaceutically tolerable excipients, optionally in combination with one or more further active ingredients.

14. A method for inhibiting p70S6K in a system, wherein a system expressing p70S6K is contacted with at least one compound according to claim 1 and/or a physiologically acceptable salt thereof.