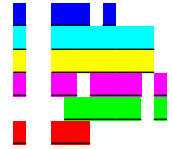

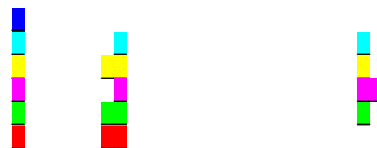


Ligand BS:

- N~2~,N~2~-DIMETHYL-N~1~-((6-OXO-5,6-DIHYDROPHENANTHRIDIN-2-YL)GLYCINAMIDE (4KXJ-P34, OC43)
- ADENOSINE MONOPHOSPHATE (4LI4-AMP, OC43)
- URIDINE-5'-MONOPHOSPHATE (4LM7-U5P, OC43)
- GUANOSINE-5'-MONOPHOSPHATE (4LM9-5GP, OC43)
- CYTIDINE-5'-MONOPHOSPHATE (4LMC-C5P, OC43)
- 6-chloranyl-7-(2-morpholin-4-ylethylamino)quinoline-5,8-dione (4LMT-CQD,OC43)

CLUSTAL O(1.2.4) multiple sequence alignment

		
YP_009724397	MSDNGPQ-NQRNAPRITFGGSPDSTGNSQNGERSGARSKQRRPQGLPNNTASWFTALTQH	59
SP P59595 NCAP_CVHSA	MSDNGPQSNQRSAPRITFGGPTDSDTNNQNGGRNGARPKQRRPQGLPNNTASWFTALTQH	60
TR Q6UZF2 Q6UZF2_CVHSA	MSDNGPQSNQRSAPRITFGGPTDSDTNNQNGGRNGARPKQRRPQGLPNNTASWFTALTQH	60
TR Q6JH41 Q6JH41_CVHSA	MSDNGPQSNQRSAPRITFGGPTDSDTNNQNGGRNGARPKQRRPQGLPNNTASWFTALTQH	60
TR Q6UZE8 Q6UZE8_CVHSA	MSDNGPQSNQRSAPRITFGGPTDSDTNNQNGGRNGARPKQRRPQGLPNNTASWFTALTQH	60
TR Q692D7 Q692D7_CVHSA	MSDNGPQSNQRSAPRITFGGPTDSDTNNQNGGRNGARPKQRRPQGLPNNTASWFTALTQH	60
TR R9QTB4 R9QTB4_CVHSA	MSDNGPQ-NQRSAPRITFGGSPDSDTNNQDGGRSGARPKQRRPQGLPNNTASWFTALTQH	59
SP Q3I5I7 NCAP_BCRP3	MSDNGPQ-NQRSAPRITFGGPTDSDTNNQDGGRSGARPKQRRPQGLPNNTASWFTALTQH	59
TR A0A0K1YZZ7 A0A0K1YZZ7_CVHSA	MSDNGPH-NQRSASRITFGGPTDSDTNNQNGGRNGARPKQRRPQGLPNNTASWFTALTQH	59
TR R9QTA2 R9QTA2_CVHSA	MSDNGPQSNQRSAPRITFGGPTDSDADNNQDGGRSGARPKQRRPQGLPNNTASWFTALTQH	60
SP Q3LZX4 NCAP_BCHK3	MSDNGPQ-SQRSAPRITFGGPADSDNDNNQDGGRSGARPKQRRPQGLPNNTASWFTALTQH	59
TR A0A0U1WHJ1 A0A0U1WHJ1_CVHSA	MSDNGPQ-NQRSAPRITFGGSPDSDTNNQDGGRSGVRPKQRRPQGLPNNTASWFTALTQH	59
SP Q0Q468 NCAP_BC279	MSDNGPQ-NQRSAPRITFGGSPDSDTNNQDGGRSGARPKQRRPQGLPNNTASWFTALTQH	59
TR A0A166ZLE5 A0A166ZLE5_9NIDO	MSDNGTQ-NQRSASRITFGGSPDSDTNNQDGGRSGARPKQRRPQGLPNNTASWFTALTQH	59
TR A0A0U1UZD6 A0A0U1UZD6_CVHSA	MSDNGTQ-NQRSASRITFGGSPDSDTNNQDGGRSGARPKQRRPQGLPNNTASWFTALTQH	59
	***** : .**.* *****:** ..**:* *.**.* **********	
		
YP_009724397	GKEDLKFPQGQVPIINTNSPDDQIGYYRRATRRIRGGDGKMKDLSPRWYFYFLGTGPEA	119
SP P59595 NCAP_CVHSA	GKEELRFPRQGQVPIINTNSPDDQIGYYRRATRRVRGGDGKMKELSPRWYFYFLGTGPEA	120
TR Q6UZF2 Q6UZF2_CVHSA	GKEELRFPRQGQVPIINTNSPDDQIGYYRRATRRVRGGDGKMKELSPRWYFYFLGTGPEA	120
TR Q6JH41 Q6JH41_CVHSA	GKEELRFPRQGQVPIINTNSPDDQIGYYRRATRRVRGGDGKMKELSPRWYFYFLGTGPEA	120
TR Q6UZE8 Q6UZE8_CVHSA	GKEELRFPRQGQVPIINTNSPDDQIGYYRRATRRVRGGDGKMKELSPRWYFYFLGTGPEA	120
TR Q692D7 Q692D7_CVHSA	GKEELRFPRQGQVPIINTNSPDDQIGFYRRATRRVRGGDGKMKELSPRWYFYFLGTGPEA	120
TR R9QTB4 R9QTB4_CVHSA	GKEELRFPRQGQVPIINTNSGKDDQIGYYRRATRRVRGGDGKMKELSPRWYFYFLGTGPEA	119
SP Q3I5I7 NCAP_BCRP3	GKEELRFPRQGQVPIINTNSGKDDQIGYYRRATRRVRGGDGKMKELSPRWYFYFLGTGPEA	119
TR A0A0K1YZZ7 A0A0K1YZZ7_CVHSA	GKEELRFPRQGQVPIINTNSPDDQIGYYRRATRRVRGGDGKMKELSPRWYFYFLGTGPEA	119
TR R9QTA2 R9QTA2_CVHSA	GKEELRFPRQGQVPIINTNSGKDDQIGYYRRATRRVRGGDGKMKELSPRWYFYFLGTGPEA	120
SP Q3LZX4 NCAP_BCHK3	GKEELRFPRQGQVPIINTNSGKDDQIGYYRRATRRVRGGDGKMKELSPRWYFYFLGTGPEA	119
TR A0A0U1WHJ1 A0A0U1WHJ1_CVHSA	GKEGLKFPQGQVPIINTNSGRDDQIGYYRRATRRVRGGDGKMKELSPRWYFYFLGTGPEA	119
SP Q0Q468 NCAP_BC279	GKEELRFPRQGQVPIINTNSGKDDQIGYYRRATRRVRGGDGKMKELSPRWYFYFLGTGPEA	119
TR A0A166ZLE5 A0A166ZLE5_9NIDO	GKEGLKFPQGQVPIINTNSGDDQIGYYRRATRRVRGGDGKMKELSPRWYFYFLGTGPEA	119
TR A0A0U1UZD6 A0A0U1UZD6_CVHSA	GKEGLKFPQGQVPIINTNSGRDDQIGYYRRATRRVRGGDGKMKELSPRWYFYFLGTGPEA	119
	*** *:***:*****. *****:*****:*****.*****	



YP_009724397 GLPYGANCKDGIWVATEGALNTPKDHIGTRNPANNAIIVLQLPQGTTLPKGFYAEGRSGG 179
SP|P59595|NCAP_CVHSA SLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAATVQLPQGTTLPKGFYAEGRSGG 180
TR|Q6UZF2|Q6UZF2_CVHSA SLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAATVQLPQGTTLPKGFYAEGRSGG 180
TR|Q6JH41|Q6JH41_CVHSA SLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAATVQLPQGTTLPKGFYAEGRSGG 180
TR|Q6UZE8|Q6UZE8_CVHSA SLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAATVQLPQGTTLPKGFYAEGRSGG 180
TR|Q692D7|Q692D7_CVHSA SLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAATVQLPQGTTLPKGFYAEGRSGG 180
TR|R9QTB4|R9QTB4_CVHSA SLPYGANKEGIWVATEGALNTPKDHIGTRNPNNNAIIVLQLPQGTTLPKGFYAEGRSGG 179
SP|Q3I5I7|NCAP_BCRP3 SLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAIIVLQLPQGTTLPKGFYAEGRSGG 179
TR|A0A0K1YZZ7|A0A0K1YZZ7_CVHSA SLPYGANKEGIWVATEGALNTPKDHIGTRNPNNNAATVQLPQGTTLPKGFYAEGRSGG 179
TR|R9QTA2|R9QTA2_CVHSA SLPYGANKEGIVWVAIEGALNTPKDHIGTRNPNNNAIIVLQLPQGTTLPKGFYAEGRSGG 180
SP|Q3LZX4|NCAP_BCHK3 SLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAIIVLQLPQGTTLPKGFYAEGRSGG 179
TR|A0A0U1WHJ1|A0A0U1WHJ1_CVHSA SLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAIIVLQLPQGTTLPKGFYAEGRSGG 179
SP|Q0Q468|NCAP_BC279 SLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAIIVLQLPQGTTLPKGFYAEGRSGG 179
TR|A0A166ZLE5|A0A166ZLE5_9NIDO SLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAIIVLQLPQGTTLPKGFYAEGRSGG 179
TR|A0A0U1UZD6|A0A0U1UZD6_CVHSA SLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAIIVLQLPQGTTLPKGFYAEGRSGG 179
*****:***:*** *****:***:*** *****:***:*** *****:***:*** *****:***:***

YP_009724397 SQASSRSSSRGNSRNSTPGSSRGTSPPARMAGGGDAALALLLDRLNQLSKVSGKGG 239
SP|P59595|NCAP_CVHSA SQASSRSSSRGNSRNSTPGSSRGNSPPARMASGGGETALALLLDRLNQLSKVSGKGG 240
TR|Q6UZF2|Q6UZF2_CVHSA SQASSRSSSRGNSRNSTPGSSRGNSPPARMASGGGETALALLLDRLNQLSKVSGKGG 240
TR|Q6JH41|Q6JH41_CVHSA SQASSRSSSRGNSRNSTPGSSRGNSPPARMASGGGETALALLLDRLNQLSKVSGKGG 240
TR|Q6UZE8|Q6UZE8_CVHSA SQASSRSSSRGNSRNSTPGSSRGNSPPARMASGGGETALALLLDRLNQLSKVSGKGG 240
TR|Q692D7|Q692D7_CVHSA SQASSRSSSRGNSRNSTPGSSRGNSPPARMASGGGETALALLLDRLNQLSKVSGKGG 240
TR|R9QTB4|R9QTB4_CVHSA SQASSRSSSRGNSRNSTPGSSRGNSPPARMASGGGETALALLLDRLNQLSKVSGKGG 239
SP|Q3I5I7|NCAP_BCRP3 SQASSRSSSRGNSRNSTPGSSRGNSPPARMASGGGETALALLLDRLNQLSKVSGRSG 239
TR|A0A0K1YZZ7|A0A0K1YZZ7_CVHSA SQASSRSSSRGNSRNSTPGSSRGTSPPARIASGGGETALALLLDRLNQLSKVSGKGG 239
TR|R9QTA2|R9QTA2_CVHSA SQASSRSSSRGNSRNSTPGSSRGNSPPARMASGGGETALALLLDRLNQLSKVSGKGG 240
SP|Q3LZX4|NCAP_BCHK3 SQASSRSSSRGNSRNSTPGSSRGNSPPARLASGGGETALALLLDRLNQLSKVSGKGG 239
TR|A0A0U1WHJ1|A0A0U1WHJ1_CVHSA SQASSRSSSRGNSRNSTPGSSRGNSPPARVASGGGETALALLLDRLNQLSKVSGKGG 239
SP|Q0Q468|NCAP_BC279 SQASSRSSSRGNSRNSTPGSSRGNSPPARMASGGGETALALLLDRLNQLSKVSGKGG 239
TR|A0A166ZLE5|A0A166ZLE5_9NIDO SQASSRSSSRGNSRNSTPGSSRGNSPPARVASGGGETALALLLDRLNQLSKVSGKGG 239
TR|A0A0U1UZD6|A0A0U1UZD6_CVHSA SQASSRSSSRGNSRNSTPGSSRGNSPPARVASGGGETALALLLDRLNQLSKVSGKGG 239
:*:***:***:*** *****:***:*** *****:***:*** *****:***:*** *****:***:***

YP_009724397 QQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFGRGPEQTQGNFGDQELIRQGTDYK 299
SP|P59595|NCAP_CVHSA QQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFGRGPEQTQGNFGDQDLIRQGTDYK 300
TR|Q6UZF2|Q6UZF2_CVHSA QQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFGRGPEQTQGNFGDQDLIRQGTDYK 300
TR|Q6JH41|Q6JH41_CVHSA QQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFGRGPEQTQGNFGDQDLIRQGTDYK 300
TR|Q6UZE8|Q6UZE8_CVHSA QQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFGRGPEQTQGNFGDQDLIRQGTDYK 300
TR|Q692D7|Q692D7_CVHSA QQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFGRGPEQTQGNFGDQDLIRQGTDYK 300
TR|R9QTB4|R9QTB4_CVHSA QQQGQTVTKKSAAEASKKPRQKRTATKSYNVTQAFGRGPEQTQGNFGDQDLIRQGTDYK 299
SP|Q3I5I7|NCAP_BCRP3 QQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFGRGPEQTQGNFGDQELIRQGTDYK 299
TR|A0A0K1YZZ7|A0A0K1YZZ7_CVHSA QQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFGRGPEQTQGNFGDQDLIRQGTDYK 299
TR|R9QTA2|R9QTA2_CVHSA QQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFGRGPEQTQGNFGDQELIRQGTDYK 300
SP|Q3LZX4|NCAP_BCHK3 QPQPGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFGRGPEQTQGNFGDQELIRQGTIDYK 299
TR|A0A0U1WHJ1|A0A0U1WHJ1_CVHSA QQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFGRGPEQTQGNFGDQELIRQGTIDYK 299
SP|Q0Q468|NCAP_BC279 QQQGQTVTKKSAAEASKKPRQKRTATKSYNVTQAFGRGPEQTQGNFGDQDLIRQGTIDYK 299
TR|A0A166ZLE5|A0A166ZLE5_9NIDO QQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFGRGPEQTQGNFGDQELIRQGTIDYK 299
TR|A0A0U1UZD6|A0A0U1UZD6_CVHSA QQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFGRGPEQTQGNFGDQELIRQGTIDYK 299
:*:***:***:*** *****:***:*** *****:***:*** *****:***:*** *****:***:***

YP_009724397 HWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDA 359
SP|P59595|NCAP_CVHSA HWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDA 360
TR|Q6UZF2|Q6UZF2_CVHSA HWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDA 360
TR|Q6JH41|Q6JH41_CVHSA HWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDA 360
TR|Q6UZE8|Q6UZE8_CVHSA HWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDA 360
TR|Q692D7|Q692D7_CVHSA HWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDA 360
TR|R9QTB4|R9QTB4_CVHSA HWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDA 359
SP|Q3I5I7|NCAP_BCRP3 HWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDA 359
TR|A0A0K1YZZ7|A0A0K1YZZ7_CVHSA HWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDA 359
TR|R9QTA2|R9QTA2_CVHSA HWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDA 360
SP|Q3LZX4|NCAP_BCHK3 HWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDA 359
TR|A0A0U1WHJ1|A0A0U1WHJ1_CVHSA HWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDA 359
SP|Q0Q468|NCAP_BC279 YWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDA 359
TR|A0A166ZLE5|A0A166ZLE5_9NIDO HWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDA 359
TR|A0A0U1UZD6|A0A0U1UZD6_CVHSA HWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDA 359
:*:***:***:*** *****:***:*** *****:***:*** *****:***:*** *****:***:***

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YP_009724397
SP|P59595|NCAP_CVHSA|YKTFPPTEPKKDKKKKKADETQALPQRQKKQPTVTLTPAADLDDFSKQLQSSMSGADSTQA|419
TR|Q6UZF2|Q6UZF2_CVHSA|YKTFPPTEPKKDKKKKTDEAQLPQRQKKQPTVTLTPAADMDDFSRQLQNSMSGASADST|420
TR|Q6JH41|Q6JH41_CVHSA|YKTFPPTEPKKDKKKKTDEAQLPQRQKKQPTVTLTPAADMDDFSRQLQNSMSGASADST|420
TR|Q6UZE8|Q6UZE8_CVHSA|YKTFPPTEPKKDKKKKTDEAQLPQRQKKQPTVTLTPAADMDDFSRQLQNSMSGASADST|420
TR|Q692D7|Q692D7_CVHSA|YKTFPPTEPKKDKKKKTDEAQLPQRQKKQPTVTLTPAADMDDFSRQLQNSMSGASADST|420
TR|R9QTB4|R9QTB4_CVHSA|YKTFPPTEPKKDKKKKTDEAQLPQRK-KQPTVTLTPAADMDDFSRQLQNSMSGASADST|418
SP|Q3I5I7|NCAP_BCRP3|YKIFPPTEPKKDKKKKTDEAQLPQRQKKQPTVTLTPAADMDDFSRQLQNSMSGASADST|419
TR|A0A0K1YZZ7|A0A0K1YZZ7_CVHSA|YKTFPPTEPKKDKKKKTDEAQLPQRQKKQPTVTLTPAADMDDFSRQLQNSMSGASADST|419
TR|R9QTA2|R9QTA2_CVHSA|YKTFPPTEPKKDKKKKTDEAQLPQRQKKQPTVTLTPAADMDDFSRQLQNSMSGASADST|420
SP|Q3LZX4|NCAP_BCHK3|YKTFPPTEPKKDKKKKTDEAQLPQRQKKQPTVTLTPAADMDDFSRQLQNSMSGASADST|419
TR|A0A0U1WHJ1|A0A0U1WHJ1_CVHSA|YKTFPPTEPKKDKKKKTDEAQLPQRQKKQPTVTLTPAADMDDFSRQLQNSMSGASADST|419
SP|Q0Q468|NCAP_BC279|YKAFPPTEPKKDKKKKTDEAQLPQRK-KQPTVTLTPAADMDDFSRQLQNSMSGASADST|418
TR|A0A166ZLE5|A0A166ZLE5_9NIDO|YKTFPPTEPKKDKKKKTDEAQLPQRK-KQPTVTLTPAADMDDFSRQLQNSMSGASADST|418
TR|A0A0U1UZD6|A0A0U1UZD6_CVHSA|YKTFPPTEPKKDKKKKTDEAQLPQRK-KQPTVTLTPAADMDDFSRQLQNSMSGASADST|418
** *****: ** : * ** : * *****: *****: *****: *****: * . : . :

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YP_009724397
SP|P59595|NCAP_CVHSA|QA|422
TR|Q6UZF2|Q6UZF2_CVHSA|QA|422
TR|Q6JH41|Q6JH41_CVHSA|QA|422
TR|Q6UZE8|Q6UZE8_CVHSA|QA|422
TR|Q692D7|Q692D7_CVHSA|QA|422
TR|R9QTB4|R9QTB4_CVHSA|QA|420
SP|Q3I5I7|NCAP_BCRP3|QA|421
TR|A0A0K1YZZ7|A0A0K1YZZ7_CVHSA|QA|421
TR|R9QTA2|R9QTA2_CVHSA|QA|422
SP|Q3LZX4|NCAP_BCHK3|QA|421
TR|A0A0U1WHJ1|A0A0U1WHJ1_CVHSA|QA|421
SP|Q0Q468|NCAP_BC279|QA|420
TR|A0A166ZLE5|A0A166ZLE5_9NIDO|QA|420
TR|A0A0U1UZD6|A0A0U1UZD6_CVHSA|QA|420

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