```
Human           MLVDGPSERPALCFLLLAVAMSFFGSALSIDETRAHLLLKEKMMRLGGRLVLNTKEELAN 60
Chimpanzee      MLVDGPSERPALCFLLLAVAMSFFGSALSIDETRAHLLLKEKMMRLGGKLVLNTKEELAN 60
                ************************************************************

Human           ERLMTLKIAEMKEAMRTLIFPPSMHFFQAKHLIERSQVFNILRMMPKGAALHLHDIGIVT 120
Chimpanzee      ERLMTLKIAEMKEAMRTLIFPPSMHFFQAKHLIERSQVFNILRMMPKGAALHLHDIGIVT 120
                ************************************************************

Human           MDWLVRNVTYRPHCHICFTPRGIMQFRFAHPTPRPSEKCSKWILLEDYRKRVQNVTEFDD 180
Chimpanzee      MDWLVRNVTYRPHCHICFTPRGIMQFRFAHPTPRTSEKCSKWILLEDYRKRVQNVTEFDD 180
                ********************************.***************************

Human           SLLRNFTLVTQHPEVIYTNQNVVWSKFETIFFTISGLIHYAPVFRDYVFRSMQEFYEDNV 240
Chimpanzee      SLLRNFTLVTQHPEVIYTNQNVVWSKFETIFFTISGLIHYAPVFRDYVFRSMQEFYEDNV 240
                ************************************************************

Human           LYMEIRARLLPVYELSGEHHDEEWSVKTYQEVAQKFVETHPEFIGIKIIYSDHRSKDVAV 300
Chimpanzee      LYMEIRARLLPVYELSGEHHDEEWSVKTYQEVAQKFVETHPEFIGIKIIYSDHRSKDVAV 300
                ************************************************************

Human           IAESIRMAMGLRIKFPTVVAGFDLVGHEDTGHSLHDYKEALMIPAKDGVKLPYFFHAGET 360
Chimpanzee      IAESIRTAMGLRTKFPTVVAGFDLVGHEDTGHSLHDYKEALMIPAKVGVKLPYFFHAGET 360
                ****** ***** ******************************** *************

Human           DWQGTSIDRNILDALMLNTTRIGHGFALSKHPAVRTYSWKKDIPIEVCPISNQVLKLVSD 420
Chimpanzee      DWQGTSIDRNILDALMLNTSRIGHGFALSKHPAVRTYSWKKDIPIEVCPISNQVLKLVSD 420
                ********************:***************************************

Human           LRNHPVATLMATGHPMVISSDDPAMFGAKGLSYDFYEVFMGIGGMKADLRTLKQLAMNSI 480
Chimpanzee      LRNHPVATLMATGHPMVISSDDPAMFGAKGLSYDFYEVFMGIGGMKADLRTLKQLAMNSI 480
                ************************************************************

Human           KYSTLLESEKNTFMEIWKKRWDKFIADVATK 511
Chimpanzee      KYSTLLESEKNTFMEIWKKRWDKFIADVATK 511
                *******************************
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Figure 1A


Human MLVDGPSERPALCFLLLAVAMSFFGSALSIDETRAHLLLKEKMMRLGGRLVLNTKEELAN 60
Gorilla MLVDGPSERPALRFLLLAVAMSFFGSALSIDETRAHLLLKEKMMRLGGKLVLNTKEELAN 60
Human ERLMTLKIAEMKEAMRTLIFPPSMHFFQAKHLIERSQVFNILRMMPKGAALHLHDIGIVT 120
Gorilla ERLMTLKIAEMKEAMRTLIFPPSMHFFQAKHLIERSQVFNVLRMMPKGAALHLHDIGIVT 120
Human MDWLVRNVTYRPHCHICFTPRGIMQFRFAHPTPRPSEKCSKWILLEDYRKRVQNVTEFDD 180
Gorilla MDWLVRNVTYRPHCHICFTPRGIMQFRFAHPTPRTSEKCSKWILLEDYRKQVQNVTEFDD 180
Human SLLRNFTLVTQHPEVIYTNQNVVWSKFETIFFTISGLIHYAPVFRDYVFRSMQEFYEDNV 240
Gorilla SLLRNFTLVTQHPEVIYTNQNVVWSKFENIFFTISGLIHYAPVFRDYVFRSMQEFYEDNV 240
Human LYMEIRARLLPVYELSGEHHDEEWSVKTYQEVAQKFVETHPEFIGIKIIYSDHRSKDVAV 300
Gorilla LYMEIRARLLPVYELSGEHHDEEWSVKTYQEVAQKFVETHPEFIGIKIIYSDHRSKDVAV 300
Human IAESIRMAMGLRIKFPTVVAGFDLVGHEDTGHSLHDYKEALMIPAKDGVKLPYFFHAGET 360
Gorilla IAESIRTAMGLRTKFPTVVAGFDLVGHEDTGHSLHDYKEALMIPAKDGVKLPYFFHAGET 360
Human DWQGTSIDRNILDALMLNTTRIGHGFALSKHPAVRTYSWKKDIPIEVCPISNQVLKLVSD 420
Gorilla DWQGTSIDRNILDALMLNTTRIGHGFALSKHPAVRTYSWKKDIPIEVCPISNQVLKLVSD 420
Human LRNHPVATLMATGHPMVISSDDPAMFGAKGLSYDFYEVFMGIGGMKADLRTLKQLAMNSI 480
Gorilla LRNHPVATLMATGHPMVISSDDPAMFGAKGLSYDFYEVFMGIGGMKADLRTLKQLAMNSI 480
Human KYSTLLESEKNTFMEIWKKRWDKFIADVATK 511
Gorilla KYSTLLESEKNTFMEIWKKRWDKFIADVATK 511

Figure 1B

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Human           MLVDGPSERPALCFLLLAVAMSFFGSALSIDETRAHLLLKEKMMRLGGRLVLNTKEELAN 60
Pygmy_chimp     MLVDGPSERPALCFLLLAVAMSFFSSALSIDETRAHLLLKEKMMRLGGRLVLNTKEELAN 60
                ************************.************************************

Human           ERLMTLKIAEMKEAMRTLIFPPSMHFFQAKHLIERSQVFNILRMMPKGAALHLHDIGIVT 120
Pygmy_chimp     ERLMTLKIAEMKEAMRTLIFPPSMHFFQAKHLIERSQVFNILRMMPKGAALHLHDIGIVT 120
                ************************************************************

Human           MDWLVRNVTYRPHCHICFTPRGIMQFRFAHPTPRPSEKCSKWILLEDYRKRVQNVTEFDD 180
Pygmy_chimp     MDWLVRNVTYRPHCHICFTPRGIMQFRFAHPTPRTSEKCSKWILLEDYRKRVQNVTEFDD 180
                ********************************.***************************

Human           SLLRNFTLVTQHPEVIYTNQNVVWSKFETIFFTISGLIHYAPVFRDYVFRSMQEFYEDNV 240
Pygmy_chimp     SLLRNFTLVTQHPEVIYTNQNVVWSKFETIFFTISGLIHYAPVFRDYVFRSMQEFYEDNV 240
                ************************************************************

Human           LYMEIRARLLPVYELSGEHHDEEWSVKTYQEVAQKFVETHPEFIGIKIIYSDHRSKDVAV 300
Pygmy_chimp     LYMEIRARLLPVYELSGEHHDEEWSVKTYQEVAQKFVETHPEFIGIKIIYSDHRSKDVAV 300
                ************************************************************

Human           IAESIRMAMGLRIKFPTVVAGFDLVGHEDTGHSLHDYKEALMIPAKDGVKLPYFFHAGET 360
Pygmy_chimp     IAESIRTAMGLRTKFPTVVAGFDLVGHEDTGHSLHDYKEALMIPAKVGVKLPYFFHAGET 360
                ****** ***** ********************************* *************

Human           DWQGTSIDRNILDALMLNTTRIGHGFALSKHPAVRTYSWKKDIPIEVCPISNQVLKLVSD 420
Pygmy_chimp     DWQGTSIDRNILDALMLNASRIGHGFALSKHPAVRTYSWEKDIPIEVCPISNQVLKLVSD 420
                ******************::********************:********************

Human           LRNHPVATLMATGHPMVISSDDPAMFGAKGLSYDFYEVFMGIGGMKADLRTLKQLAMNSI 480
Pygmy_chimp     LRNHPVATLMATGHPMVISSDDPAMFGAKGLSYDFYEVFMGIGGMKADLRTLKQLAMNSI 480
                ************************************************************

Human           KYSTLLESEKNTFMEIWKKRWDKFIADVATK 511
Pygmy_chimp     KYSTLLESEKNTFMEIWKKRWDKFIADVATK 511
                ********************************
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Figure 1C


Human MLVDGPSERPALCFLLLAVAMSFFGSALSIDETRAHLLLKEKMMRLGGRLVLNTKEELAN 60
Orangutan MLVDGPSEWPALRFLLLAVAMSFFGSALSIDETRAHLLLKEKMMRLGGKLVLNTKEEQAN 60
Human ERLMTLKIAEMKEAMRTLIFPPSMHFFQAKHLIERSQVFNILRMMPKGAALHLHDIGIVT 120
Orangutan ERLMMLKIAEMKEAMRTLIFPPSMHFFQAKHLIERSQVFNILRMMPKGAALHLHDIGIVT 120
Human MDWLVRNVTYRPHCHICFTPRGIMQFRFAHPTPRPSEKCSKWILLEDYRKRVQNVTEFDD 180
Orangutan MDWLVRNVTYRPHCHICFTPKGIMQFRFAHPTPRTSEKCSKWILLEDYRKRVQNVTEFDD 180
Human SLLRNFTLVTQHPEVIYTNQNVVWSKFETIFFTISGLIHYAPVFRDYVFRSMQEFYEDNV 240
Orangutan SLLRNFTLVTQHPEVIYTNQNVVWSKFETIFFTISGLIHYAPVFRDYVFQSMQEFYEDNV 240
Human LYMEIRARLLPVYELSGEHHDEEWSVKTYQEVAQKFVETHPEFIGIKIIYSDHRSKDVAV 300
Orangutan LYMEIRARLLPVYELSGEHHDEEWSVKTYQEVAQKFVETHPEFIGIKIIYSDHRSKDVAV 300
Human IAESIRMAMGLRIKFPTVVAGFDLVGHEDTGHSLHDYKEALMIPAKDGVKLPYFFHAGET 360
Orangutan IAESIRTAMGLRTKFPTVVAGFDLVGREDTGHSLQDYKEALMIPAKGGVKLPYFFHAGET 360
Human DWQGTSIDRNILDALMLNTTRIGHGFALSKHPAVRTYSWKKDIPIEVCPISNQVLKLVSD 420
Orangutan DWQGTSIDRNILDALMLNTTRIGHGFALSKHPAVRAYSWKKDIPIEVCPISNQVLKLVSD 420
Human LRNHPVATLMATGHPMVISSDDPAMFGAKGLSYDFYEVFMGIGGMKADLRTLKQLAMNSI 480
Orangutan LRNHPVATLMATGHPMVISSDDPAIFGAKGLSYDFYEVFMGIGGMKADLRTLKQLAMNSI 480
Human KYSTLLESEKNTFMEIWKKRWDKFIADVATK 511
Orangutan KYSALLEIEKNTFMEIWKKRWDKFIADVATK 511

Figure 1D


Human MLVDGPSERPALCFLLLAVAMSFFGSALSIDETRAHLLLKEKMMRLGGRLVLNTKEELAN 60
Gibbon MLVDGPSEWPALRFLLLAVAMSFFGSALSIDETRAHLLLKEKMMRLGGKLVLSTKEEQAN 60
Human ERLMTLKIAEMKEAMRTLIFPPSMHFFQAKHLIERSQVFNILRMMPKGAALHLHDIGIVT 120
Gibbon ERLMTLKITEMKEAMKTLIFPPSMHFFQAKHLIERSQVFNILRMMPKGAALHLHDIGIVT 120
Human MDWLVRNVTYRPHCHICFTPRGIMQFRFAHPTPRPSEKCSKWILLEDYRKRVQNVTEFDD 180
Gibbon MDWLVRNVTYRPHCHICFTPKGIMQFRFAHPTPRTSEKCSKWILLEDYRKRVQNVTEFDD 180
Human SLLRNFTLVTQHPEVIYTNQNVVWSKFETIFFTISGLIHYAPVFRDYVFRSMQEFYEDNV 240
Gibbon SLLRNFTLVTQHPEVIYTNQNVVWSKFETIFFTISGLIHYAPVFRDYVFX-------DNV 233
Human LYMEIRARLLPVYELSGEHHDEEWSVKTYQEVAQKFVETHPEFIGIKIIYSDHRSKDVAV 300
Gibbon LYMEIRARLLPVYELSGEHHDEEWSVKTYQEVAQKFVETHPEFIGIKIIYSDHRSKDVAV 293
Human IAESIRMAMGLRIKFPTVVAGFDLVGHEDTGHSLHDYKEALMIPAKDGVKLPYFFHAGET 360
Gibbon IAESIRTAMGLRAKFPTVVAGFDLVGHEDTGHSLHDYKEALMIPTKDGVKLPYFFHAGET 353
Human DWQGTSIDRNILDALMLNTTRIGHGFALSKHPAVRTYSWKKDIPIEVCPISNQVLKLVSD 420
Gibbon DWQGTSIDKNILDALMLNTTRIGHGFALSKHPAVRAYSWKKDIPIEVCPISNQVLKLVSD 413
Human LRNHPVATLMATGHPMVISSDDPAMFGAKGLSYDFYEVFMGIGGMKADLRTLKQLAMNSI 480
Gibbon LRNHPVATLMATGHPMVISSDDPAIFGAKGLSYDFYEVFMGIGGMKADLRTLKQLAMNSI 473
Human KYSTLLESEKNTFMEIWKKRWDKFIADVATK 511
Gibbon KYSTLLETEKNTFMEIWKKRWDKFIADVATK 504

Figure 1E


Human MLVDGPSERPALCFLLLAVAMSFFGSALSIDETRAHLLLKEKMMRLGGRLVLNTKEELAN 60
Macaque MLVDGPSEWPALRFLLLAVAMSFFRSALSIDE--AHLLLKEKMMRLGGPLVLTTKEEQAN 58
Human ERLMTLKIAEMKEAMRTLIFPPSMHFFQAKHLIERSQVFNILRMMPKGAALHLHDIGIVT 120
Macaque ERLMTLKIAEMKEAMKTLIFPPSMHFFQAKHLIERSQVFNILRMMPKGAALHLHDTGIVT 118
Human MDWLVRNVTYRPHCHICFTPRGIMQFRFAHPTPRPSEKCSKWILLEDYRKRVQNVTEFDD 180
Macaque MDWLVRNVTYRPHCHICFTSKGIMQFRFAHPTPRTSEKCSKWILLEDYRKRVQNVTEFDD 178
Human SLLRNFTLVTQHPEVIYTNQNVVWSKFETIFFTISGLIHYAPVFRDYVFRSMQEFYEDNV 240
Macaque SLLRNFTLVTQHPEVIYTNQNVVWSKFQTIFFTISGLIRYAPVFRDYVFRSMQEFYEDNV 238
Human LYMEIRARLLPVYELSGEHHDEEWSVKTYQEVAQKFVETHPEFIGIKIIYSDHRSKDVAV 300
Macaque LYMEIRARLLPVYELSGEHHDEEWSVKTYQEVAQKFVETHPEFIGIKIIYSDDRSKDVTV 298
Human IAESIRMAMGLRIKFPTVVAGFDLVGHEDTGHSLHDYKEALMIPAKDGVKLPYFFHAGET 360
Macaque IAESIRTAMGLRTKFPTVVAGFDLVGHEDTGHSLHYYKEALMIPARDGGKLPYFFHAGET 358
Human DWQGTSIDRNILDALMLNTTRIGHGFALSKHPAVRTYSWKKDIPIEVCPISNQVLKLVSD 420
Macaque DWQGTSIDKNILDALMLNTTRIGHGFALSKHPAARAYSWEKDIPIEVCPISNQVLKLVSD 418
Human LRNHPVATLMATGHPMVISSDDPAMFGAKGLSYDFYEVFMGIGGMKADLRTLKQLAMNSI 480
Macaque LRNHPVAALMAIGHPMVISSDDPAMFGAKGLSYDFYEAFMGIGGMKADLRTLKQLAMNSI 478
Human KYSTLLESEKNTFMEIWKKRWDKFIADVATK 511
Macaque RYSTLLETEKNTFMEIWKKRWDKFIADVATK 509

Figure 1F

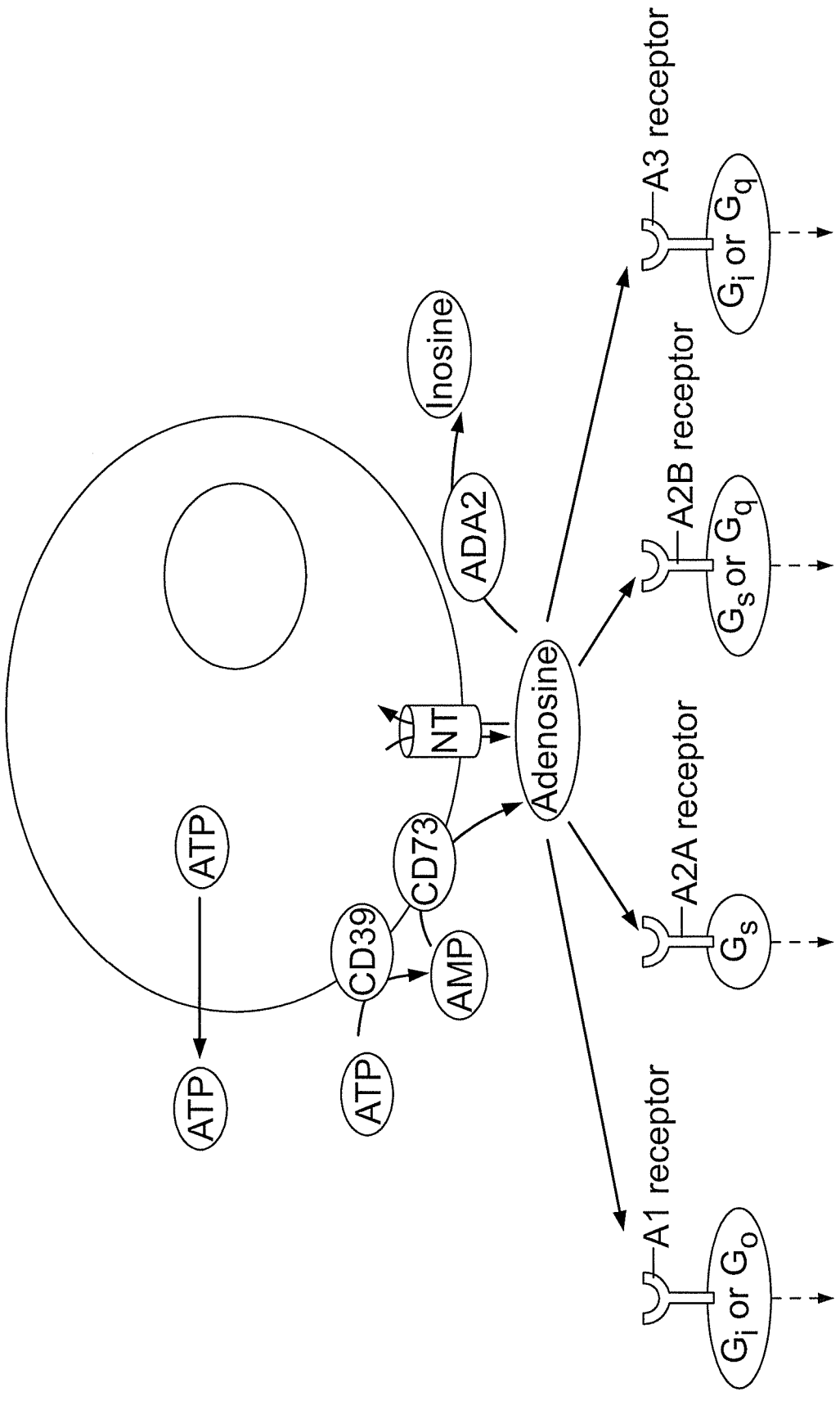

ATP
ATP
ATP
CD39
CD73
AMP
NT
Inosine
ADA2
Adenosine
A1 receptor
G_i or G_o
A2A receptor
G_s
A2B receptor
G_s or G_q
A3 receptor
G_i or G_q
adenosine-mediated activities such as immunosuppression, cancer cell proliferation, cancer cell migration and/or metastasis, angiogenesis and other effects

Figure 2