

Supplemental File 1. Sequences of proteins derived from ESTs, contigs, or PCR products from 'Butte 86' that were included in the "SuperWheat" database (Version#140828).

>BU_Gamma#1

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>BU_Gamma#2

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LNPCKNILLQQCKPASLVSSLWSIIWPQSDCQVMRQQCCQQLAQIPQQQLCAA IHSVVHS
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MCNVYVPECSIMRAPFASIVAGIGGQ

>BU_Gamma#3

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GQ

>BU_Gamma#4

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GQ

>BU_Gamma#5

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>BU_Gamma#6

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>BU_Gamma#7

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>BU_Gamma#8

>BU_Alpha#6

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>BU_Alpha#8

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>BU_Alpha#9

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>BU_Alpha#10

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>BU_Alpha#11

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>BU_Alpha#12

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>BU_Alpha#13

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>BU_Alpha#14

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>BU_Alpha#15

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>BU_Alpha#16

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>BU_Alpha#17

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>BU_Alpha#18

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>BU_Alpha#23

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>BU_Alpha#26

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>BU_Omega#D1

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>BU_Omega#D2 (BQ804665)

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>BU_Omega#D4 (BQ804424)

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>BU_Omega#B1

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>BU_Omega#B2

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>BU_LMW-GS#13

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>BU_LMW-GS#14

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>BU_LMW-GS#17

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>BU_LMW-GS#20

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>BU_Beta-amylase#1

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>BU_Beta-amylase#2

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>BU_Beta-amylase#3

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>CMx_BU-3
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LKRQCCDELSKVP ELCRCEVLHILMDGRVTKEGVVKG SLLK DMSGCKKLTREFIAGIVGR
EECNLETV FGRYHYCPTQYPEVVV
>WTI_BU-1
LSALVLLS ILAAAVATIACRPGVGIPPKPLP SCRAYVVQKTCKDTQQ TTPGKVASKDPCC
RELA VSEECRCTAMEDFMQ GMLRLEGVPEGCTRKDLWEFTLSLVKPELCNLKTI GGPYC
GLPPSNDARLADSVQDV
>WCI_BU-1
MASCSQHLLS AVAIFSVLAAAATATSMYTCYEGVGLPVDPLQGCHYYVTSQT CGFVPLLP
IEVMKDRCCRELA AISNCRCEGLRVFIDRAFPPS QSQGGGPPQPPLAPRCPT EVKR DFA
RTLALPGQC NLPTI HGGPYCVFP
>BU-LMW-GS_PCR#2
MKTFLIFALLAVAATS AIAQMETS RVPGLEK PWQQQPLPPQQQPPCSQQQQPPFQQQQPI
IILQQSPFSQQQQPVLPQQQPVI IILQQPPFSQQQQPVLPQQPPFSQQQQQQQQQQPPFSQ
QQQPVLPPQQPPFSQQQQPPFSQQQQPSSQQPPFPQQHQQFPQQQIPVVQPSVLQQLNPKC
VFLQQQC SHVAMSQRLARSQ MWQQSSCHVMQQQCCQQLPQIPEQSRSEAIRAIVYSIILQ

EQQQGFVQPQQQQPQQSGQGVSSHQQSSQQQQQLGQCSFQQPQQLQQLGQQPQQQQIPQG
IFLQPHQISQLEVMTSIALRTLPTMCGVNVPLYSSTTIMPFSIGTGVGYY

>BU-LMW-GS_PCR#3

MKTFLIFALLAVAATSAIAQMETRCIPGLERPWQQQPLPPQQTFFPQQPLFSQQQQQQQLFP
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FPQQQQQHQQQLVQQQIPVVQPSILQQLNPKVFLQQQCSPVAMPQRLARSQMLQQSSCHV
MQQQCCQQLPQIPQQSRYEAIRAIIYSIILQEQQQVQGSIQSQQQQPQQLGQCVSQPQQQ
SQQQLGQQPQQQQLAQGTFLQPHQIAQLEVMTSIALRILPTMCSVNVPLYRTTTSVPPFGV
GTGVBAY

>BU-LMW-GS_PCR#9

MKTFLV FALLAVAATSAIAQMETRCIPGLERPWQQQPLPPQQTFFPQQPLFSQQQQQQQLFP
QQPSFSQQQPPFWQQQPPFSQQQPILPQQPPFSQQQQLVLPQQPPFSQQQQPVLPPQQSP
FPQQQQQHQQQLVQQQIPVVQPSILQQLNPKVFLQQQCSPVAMPQRLARSQMLQQSSCHV
MQQQCCQQLPQIPQQSRYEAIRAIIYSIILQEQQQVQGSIQSQQQQPQQLGQCVSQPQQQ
SQQQLGQQPQQQQLAQGTFLQPHQIAQLEVMTSIALRILPTMCSVNVPLYRTTTSVPPFGV
GTGVBAY

>BU-LMW-GS_PCR#28

MKTFLV FALLAVAATSAIAQMETRCIPGLERPWQQQPLPPQQTFFPQQPLFSQQQQQQQLFP
QQPSFSQQQPPFWQQQPPFSQQQPILPQQPPFSQQQQQPVLQQQILFVHPSILQQLNPK
KVFLQQQCSPVAMPQSLARSQMLQQSSCHVMQQQCCQQLLQIPEQSRDAIRAIISIVL
QEQQHGQGLNQPQQQQPQQSVQGVSQPQQQQKQLGQCSFQQPQQQQLGQWPQQQQVPQGT
LLQPHQIAQLEVMTSIALRTLPTMCSVNVVYGTITIVPPFGVGTTRVBAY

>BU-LMW-GS_PCR#34

MKTFLV FALLALAAASAVAQISQQQQAPPFSSQQQPPFSQQQQPPFSQQQQSPFSQQQQQ
PFTQQQQPPFSQQQPIISQQQQPPFLQQQRPPFSRQQQIPVIHPSVLQQLNPKVFLQQQC
IPVAMQRCLARSQMLQQSICHVMQQQCCQQLRQIPEQSRHESIRAIISYIILQQQQQQQ
QQQQQQGQSI IQYQQQQPQQLGQCVSQPLQQLQQLGQQPQQQQLAHQIAQLEVMTSIAL
RTLPTMCSVNVPLHETTTSVPLGVBGIGVBAY

>BU-LMW-GS_PCR#35

MKTFLV FALLALAAASAVAQISQQQQAPPFSSQQQPPFSQQQQPPFSQQQQSPFSQQQQQ
QPF TQQQQPPFSQQQPIISQQQQPPFLQQQRPPFSRQQQIPVIHPSVLQQLNPKVFLQQQ
CIPVAMQRCLARSQMLQQSICHVMQQQCCQQLRQIPEQSRHESIRAIISYIILQQQQQQQ
QQQQQQGQSI IQYQQQQPQQLGQCVSQPLQQLQQLGQQPQQQQLAHQIAQLEVMTSIA
LRTLPTMCSVNVPLHETTTSVPLGVBGIGVBAY

>BU-LMW-GS_PCR#45

MKTFLV LALLAVAATSAIAQMETRCIPGLERPWQQQPLPPQQTFFPQQPLFSQQQQQQQLFP
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FPQQQQQHQQQLVQQQIPVVQPSILQQLNPKVFLQQQCSPVAMPQRLARSQMLQQSSCHV
MQQQCCQQLPQIPQQSRYEAIRAIVYSIILQEQQQVQGSIQTQQQQPQQLGQCVSQPQQQ
SQQQLGQQPQQQQLAQGTFLQPHQIAQLELMTSIALRTLPTMCSVNVPLYRTTTRVPPFGV
GTGVBAY

>BU-LMW-GS_PCR#4

MKTFLIFALLAVAATSAIAQMENSHIPGLERPSQQQPLPPQQTTLTHHQQQQPIQQQPHQF
PQQQPCSQQQPPFSQQQQPPFSQQQQQPILPQQPPFSQHQQPVLQQQIPSVQPSILQQ
LNPKVFLQQQCSPVAMPQSLARSQMLWQSSYHVMQQQCCRQLPQIPEQSRDAIRAIISY
SIVLQEQQHGQGLNQPQQQQPQQLGQCVSQPLQQLQQLGQQPQQQQLAHQIAQLEVMTS
IALRTLPTMCSVNVPLYETTTSVPLGVBGIGVBAY

>BU-LMW-GS_PCR#7

MKTFLIFALLAVAATSAIAQMENSHIPGLERPSQQQPLPPQQTTLTHHQQQQPIQQQPHQF
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VHPSILQQLNPKCEVFLQQQCSPVAMPQSLARSQMLQQSSCHVMQQQCCQQLPQIPEQSR
EAIRAIVYSVILQEQQQVQGSIQTQQQQPQQLGQCVSQPQQQSQQQLGQQPQQQQLAQGT
FLQPHQIAQLEVMTPIALRTLPTMCSVNVSLYRTTTRVPPFGVGTGVBAY

>BU-LMW-GS_PCR#16

MKTFLIFALLAVAATSAIAQMENSHIPGLERPSQQQLPPFSQQLPPFSQQQQPVLPQQPF
FSQQQQQPILPQQPPFSQQQQPVLLQQQIPFVHPSILQQLNPCCKVFLQQQCSPVAMPQSL
ARSQMLQQSSCHVMQQQCCQQLPQIPQQSRYEAIRAIVYSIILQEQQQVQGSIQSQQQQP
QQLGQCVSQPQQQSQQQLGQQPQQQQLAQGTFLQPHQIAQLEVMTSIALRTLPTMCRVNV
PLYRTTTSVPPFGVAGVGAY

>BU-LMW-GS_PCR#38

MKTFLIFALLAVAATSAIAQMENSHIPGLEKPSQQQPLPQQLPFFSQQQQPVLPQQPPFS
QQQQQPILPQQPPFSQQQQPVLLQQQIPFVHPSILQQLNPCCKVFLQQQCSPVAMPQSLAR
SQMLQQSSCHVMQQQCCQQLPQIPQQSRYEAIRAIVYSIILQEQQQVQGSIQTQQQQPQQ
LGQCVSQPQQQSQQQLGQQPQQQQLAQGTFLQPHQIAQLEVMTSIALRTLPTMCRVNVSL
YRTTTRVPPFGVGTGVGGY

>BU-LMW-GS_PCR#46

MKTFLIFALLAVAATSAIAQMENSHIPGLERPSQQQPLPPQOTLTHHQQQQPIQQQPHQF
PQQQPCSQQQQQPPLSQQQQPPFSQQQQPILPQQPPFSQQQQPVLLQQQIPFVHPSILQQ
LNPCCKVFLQQQCSPVAMPQSLARSQMLQQSSCHVMQQQCCQQLPQIPQQSRYEAIRAIVY
SIILQEQQQVQGSIQTQQQQPQQLGQCVSQPQQQSQQQLGQQPQQQQLAQGTFLQPHQIA
QLEVMTSIALRTLPTMCRVNVSLYRTTTRVPPFGVGTGVGGY

>BU-LMW-GS_PCR#47

MKTFLIFALLAVAATSAIAQMENSHIPGLERPSQQQPLPPQOTLTHHQQQQPIQQQPHQF
PQQQPCSQQQQQPPLSQQQQPPFSQQQQPVLPQQPPFSQQQQQPILPQQPPFSQQQQPVLP
LQQQIPFVHPSILQQLNPCCKVFLQQQCSPVAMPQSLARSQMLQQSSCHVMQQQCCQQLPQ
IPQQSRYEAIRAIVYSIILQEQQQVQGSIQTQQQQPQQLGQCVSQPQQQSQQQLGQQPQQ
QQLAQGTFLQPHQIAQLELMTSIALRTLPTMCRVNVPLYRTTTRVPPFGVGTGVGGY

>BU-LMW-GS_PCR#49

MKTFLIFALLAVAATSAIAQMENSHIPGLEKPSQQQPLPQQTLSSHQQQQQPVQQQPQPF
PQQQPCSQQQQPPLSQQQQPPFSQQQPPFSQQRQQPVLPQQQILFVHPSILQQLNPCCKVFL
LQQQCSPVAMPQSLARSQMLQQSSCHVMQQQCCRQLLQIPQQSRYEAIRAIYSIILQEQQ
QQVQGSIQTQQQQPQELGQCVSQPQQQSQQQLGQQPQQQQLAQGTFLQPHQIAQLEVMTS
IALRTLPTMCRVNVPLYRTTTSVPPFGVAGVGAY

>BU-LMW-GS_PCR#51

MKTFLIFALLAVAATSAIAQMENSHIPGLEKPSQQQPLPQQTLSSHQQQQQPVQQQPQPF
PQQQPCSQQQQPPLSQQQLPFFSQQQPPFSQQQQPVLPQQQILFVHPSILQQLNPCCKVFL
QQQCSPVAMPQSLARSQMLQQSSCHVMQQQCCQQLLQIPQQSRYEAIRAIYSIILQEQQ
QVQGSIQTQQQQPQELGQCVSQPQQQSQQQLGQQPQQQQLAQGTFLQPHQIARLEVMTSI
ALRTLPTMCRVNVPLYRTTTSVPPFGVAGVGAY

>BU-LMW-GS_PCR#52

MKTFLIFALLAVAATSAIAQMENSHIPGLEKPSQQQPLPQQTLSSHQQQQQPVQQQPQPF
PQQQPCSQQQQPPLSQQQQPILPQQPPFSQQQQPVLPQQQILFVHPSISQQLNPCCKVFL
QQQCSPVAMPQSLARSQMLQQSSCHVMQQQCCQQLLQIPQQSRYEAIRAIYSIILQEQQ
QVQGSIQTQQQQPQELGQCVSQPQQQSQQQLGQQPQQQQLAQGTFLQPHQIAQLEVMTSI
ALRTLPTMCRVNVPLYRTTTSVPPFGVAGVGAY