Proteins



Product Data Sheet

MMP-9 Protein, Human (HEK293, C-His)

Cat. No.: HY-P70145A

Synonyms: rHuMatrix metalloproteinase-9/MMP-9, His; Matrix metalloproteinase-9; 92 kDa gelatinase; 92

kDa type IV collagenase; Gelatinase B; MMP9

Species: Human Source: HEK293

P14780 (A19-D707) Accession:

Gene ID: 4318

Molecular Weight: Approximately 82.5 kDa

PROPERTIES

A A P R Q R Q S T L EM R G E S K S L G P A L L L L Q K Q L S P E T G E L D S C G V P D L G R F Q T F E G D L K W H H N I T Y W I Q N Y S E D L P R A V I D D A F A R A F A L W S A V T P L T F T R V Y S R D A D I V I Q F G V A E H G D G Y P F D G K D G L L A H A F P P G P G I Q C D A H F D D D E L W S L G K G V V P T R F G N A D G A C H F P F I F E G R S Y S A C T T D G R S D G L P W C S T T A N Y D T D D R F G F C P S E R L Y T Q D G N A D G K P C Y S A C T T D G R S D G Y R W C A T T A N Y D R D K L F G F F D S D K K W G F C P D Q G Y S L F L V A A H E F G H A L G M Y P M Y R F T E G P P L H K D D V N G I R H L Y G P R P E P P P P P T T T T A G P S T A T T V P L S P V D D A C N V Y W R F S E G G S R G K M L L F S G R R L W R F D V K V W R F S E G R S R G C R L W C T T S S G R G K M L L F S G R R L W R F D V K V D T L Q C P E D Biological Activity Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is 16371.30 pmol/min/µg, as measured under the described conditions. Appearance Lyophilized from a 0.2 µm filtered solution of 20 mM T ris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% B rij35(w/v), pH 7.5 or 20 mM T ris-HCl, 150 mM NaCl, 2 mM CaCl ₂ , pH 7.5. Endotoxin Level It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).	AA Sequence				
C G V P D L G R F Q D A F A R A F A L W S A V T P L T F T R V Y S R D A D I V I Q F G V A E H G D G Y P F D G K D G L A H A F P P G P G I Q G D A H F D D D E LWS L G K G V V V P T R F G N A D G A A C H F P F I F E G R S Y S A C T T D G R S D G L P W C S T T A N Y D T D D R F G F C P S E R L Y T Q D G N A D G K P C Q F P F I F Q G Q S Y S A C T T D G R S D G Y R W C A T T A N Y D R D K L F G F C P T R A D S T V M G G N S A G E L C V F P F T F L G K E Y S T C T S E G R G D G R L W C A T T S N F D S D K K W G F C P D Q G Y S L F L V A A H E F G H A L G L D H S S V P E A L M Y P M Y R F T E G P P L H K D D V N G I R H L Y G P R P E P E P R P P T T T T P Q P T A P P T V C P T G P P T V H P S E R P T A G P T G P P T A G P S T A T T V P L S P V D D A C N V N I F D A I A E I G N Q L Y L F K D G K Y W R F S E G R G S R P Q G P F L I A D K W P A L P R K L D S V F E E R L S K K L F F F S G R Q V W V T G A S V L G P R R L D K L G L G A D V A Q V T G A L R S G R G K M L L F S G R R L W R F D V K A Q M V D P R S A S E V D R M F P G V P L D T H D V F Q Y R E K A Y F C Q D R F Y W R V S S R S E L N Q V D Q V G Y V T Y D I L Q C P E D Biological Activity Measured by its ability to cleave the fluorogenic peptide substrate, Mca-P L G L-D pa-AR-N H 2. The specific activity is 16371.30 pmol/min/μg, as measured under the described conditions. Appearance Lyophilized from a 0.2 μm filtered solution of 20 m M Tris-H C l, 2 m M C C l 2, 150 m M N A C l, 0.05% B r ij 35 (w/v), p H 7.5 or 20 m M T r is-H C l, 150 m M N C l, 2 m M C C l 2, 150 m M N C l, 0.05% B r ij 35 (w/v), p H 7.5 or 20 m M T r is-H C l, 150 m M N C l, 2 m M C C c l 2, 150 m M N C l, 0.05% B r ij 35 (w/v), p H 7.5 or 20 m M T r is-H C l, 150 m M N C c l 2 t L U/μg, determined by L A L method. Reconstitution It is not recommended to reconstitute to a concentration less than 100 μg/m L in dd H 20. For long term storage it is	70 Coquence	AAPRQRQSTL	VLFPGDLRTN	LTDRQLAEEY	LYRYGYTRVA
DAFARAFALW SAVTPLTFTR VYSRDADIVI QFGVAEHGDG YPFDGKDGLL AHAFPPGPGI QGDAHFDDDE LWSLGKGVVV PTRFGNADGA ACHFPFIFEG RSYSACTTDG RSDGLPWCST TANYDTDDRF GFCPSERLYT QDGNADGKPC QFPFIFQGQS YSACTTDGRS DGYRWCATTA NYDRDKLFGF CPTRADSTVM GGNSAGELCV FPFTFLGKEY STCTSEGRGD GRLWCATTSN FDSDKKWGFC PDQGYSLFLV AAHEFGHALG LDHSSVPEAL MYPMYRFTEG PPLHKDDVNG IRHLYGPRPE PPRPPTTTT PQPTAPPTVC PTGPPTVHPS ERPTAGPTGP PSAGPTGPPT AGPSTATTVP LSPVDDACNV NIFDAIAEIG NQLYLFKDGK YWRFSEGRGS RPQGPFLIAD KWPALPRKLD SVFEERLSKK LFFFSGRQVW VYTGASVLGP RRLDKLGLGA DVAQVTGALR SGRGKMLLFS GRRLWRFDVK AQMVDPRSAS EVDRMFPGVP LDTHDVFQYR EKAYFCQDRF YWRVSSRSEL NQVDQVGYVT Biological Activity Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is 16371.30 pmol/min/µg, as measured under the described conditions. Appearance Lyophilized prowder. Formulation Lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij3S(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ pH 7.5. Endotoxin Level <1 EU/µg, determined by LAL method. Reconsititution It is not recommended to reconstitute to a concentration less than 100 µg/mLin ddH ₂ O. For long term storage it is		EMRGESKSLG	PALLLQKQL	SLPETGELDS	ATLKAMRTPR
YPFDGKDGLL AHAFPPGPGI QGDAHFDDDE LWSLGKGVVV PTRFGNADGA ACHFPFIFEG RSYSACTTDG RSDGLPWCST TANYDTDDRF GFCPSERLYT QDGNADGKPC QFPFIFQGQS YSACTTDGRS DGYRWCATTA NYDRDKLFGF CPTRADSTVM GGNSAGELCV FPFFFLGKEY STCTSEGRGD GRLWCATTSN FDSDKKWGFC PDQGYSLFLV AAHEFGHALG LDHSSVPEAL MYPMYRFTEG PPLHKDDVNG IRHLYGPRPE PEPRPPTTTT PQPTAPPTVC PTGPPTVHPS ERPTAGPTGP PSAGPTGPPT AGPSTATTVP LSPVDDACNV NIFDAILAEIG NQVLYLFKDGK YWRFSEGRGS RPQGPFLIAD KWPALPRKLD SVFEERLSKK LFFFSGRQVW VYTGASVLGP RRLDKLGLGA DVAQVTGALR SGRGKMLLFS GRRLWRFDVK AQMVDPRSAS EVDRMFPGVP LDTHDVFQYR EKAYFCQDRF YWRVSSRSEL NQVDQVGYVT YD1LQCPED Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is 16371.30 pmol/min/µg, as measured under the described conditions. Appearance Lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w		CGVPDLGRFQ	TFEGDLKWHH	HNITYWIQNY	SEDLPRAVID
PTRFGNADGA ACHFPFIFEG RSYSACTTDG RSDGLPWCST TANYDTDDRF GFCPSERLYT QDGNADGKPC QFPFIFQGQS YSACTTDGRS DGYRWCATTA NYDRDKLFGF CPTRADSTVM GGNSAGELCV FPFTFLGKEY STCTSEGRGD GRLWCATTSN FDSDKKWGFC PDQGYSLFLV AAHEFGHALG LDHSSVPEAL MYPMYRFTEG PPLHKDDVNG IRHLYGPRPE PEPRPPTTTT PQPTAPPTVC PTGPPTVHPS ERPTAGPTGP PSAGPTGPPT AGPSTATTVP LSPVDDACNV NIFDAIAEIG NQLYLFKDGK YWRFSEGRGS RPQGPFLIAD KWPALPRKLD SVFEERLSKK LFFFSGRQVW VYTGASVLGP RRLDKLGLGA DVAQVTGALR SGRGKMLLFS GRRLWRFDVK AQMVDPRSAS EVDRMFPGVP LDTHDVFQYR EKAYFCQDRF YWRVSSRSEL NQVDQVGYVT YDILQCPED Biological Activity Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is 16371.30 pmol/min/μg, as measured under the described conditions. Appearance Lyophilized powder. Formulation Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ , pH 7.5. Endotoxin Level		DAFARAFALW	SAVTPLTFTR	VYSRDADIVI	QFGVAEHGDG
TANYDTDDRF GFCPSERLYT QDGNADGKPC QFPFIFQGQS YSACTTDGRS DGYRWCATTA NYDRDKLFGF CPTRADSTVM GGNSAGELCV FPFTFLGKEY STCTSEGRGD GRLWCATTSN FDSDKKWGFC PDQGYSLFLV AAHEFGHALG LDHSSVPEAL MYPMYRFTEG PPLHKDDVNG IRHLYGPRPE PEPRPPTTTT PQPTAPPTVC PTGPPTVHPS ERPTAGPTGP PSAGPTGPPT AGPSTATTVP LSPVDDACNV NIFDAIAEIG NQLYLFKDGK YWRFSEGRGS RPQGPFLIAD KWPALPRKLD SVFEERLSKK LFFFSGRQVW VYTGASVLGP RRLDKLGLGA DVAQVTGALR SGRGKMLLFS GRRLWRFDVK AQMVDPRSAS EVDRMFPGVP LDTHDVFQYR EKAYFCQDRF YWRVSSRSEL NQVDQVGYVT YDILQCPED SEAYFCQDRF YWRVSSRSEL NQVDQVGYVT YDILQCPED SEAYFCQDRF SAGPTGPT STORT S		YPFDGKDGLL	AHAFPPGPGI	QGDAHFDDDE	LWSLGKGVVV
YSACTTDGRS DGYRWCATTA NYDRDKLFGF CPTRADSTVM GGNSAGELCV FPFTFLGKEY STCTSEGRGD GRLWCATTSN FDSDKKWGFC PDQGYSLFLV AAHEFGHALG LDHSSVPEAL MYPMYRFTEG PPLHKDDVNG IRHLYGPRPE PEPRPPTTTT PQPTAPPTVC PTGPPTVHPS ERPTAGPTGP PSAGPTGPPT AGPSTATTVP LSPVDDACNV NIFDAIAEIG NQLYLFKDGK YWRFSEGRGS RPQGPFLIAD KWPALPRKLD SVFEERLSKK LFFFSGRQVW VYTGASVLGP RRLDKLGLGA DVAQVTGALR SGRGKMLLFS GRRLWRFDVK AQMVDPRSAS EVDRMFPGVP LDTHDVFQYR EKAYFCQDRF YWRVSSRSEL NQVDQVGYVT YDILQCPED Biological Activity Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is 16371.30 pmol/min/μg, as measured under the described conditions. Appearance Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ , pH 7.5. Endotoxin Level		PTRFGNADGA	ACHFPFIFEG	RSYSACTTDG	RSDGLPWCST
GGNSAGELCV FPFTFLGKEY STCTSEGRGD GRLWCATTSN FDSDKKWGFC PDQGYSLFLV AAHEFGHALG LDHSSVPEAL MYPMYRFTEG PPLHKDDVNG IRHLYGPRPE PEPRPPTTTT PQPTAPPTVC PTGPPTVHPS ERPTAGPTGP PSAGPTGPPT AGPSTATTVP LSPVDDACNV NIFDAIAEIG NQLYLFKDGK YWRFSEGRGS RPQGPFLIAD KWPALPRKLD SVFEERLSKK LFFFSGRQVW VYTGASVLGP RRLDKLGLGA DVAQVTGALR SGRGKMLLFS GRRLWRFDVK AQMVDPRSAS EVDRMFPGVP LDTHDVFQYR EKAYFCQDRF YWRVSSRSEL NQVDQVGYVT YDILQCPED Biological Activity Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is 16371.30 pmol/min/μg, as measured under the described conditions. Appearance Lyophilized powder. Formulation Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ , pH 7.5. Endotoxin Level <1 EU/μg, determined by LAL method. Reconstitution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is		TANYDTDDRF	GFCPSERLYT	QDGNADGKPC	QFPFIFQGQS
FDSDKKWGFC PDQGYSLFLV AAHEFGHALG LDHSSVPEAL MYPMYRFTEG PPLHKDDVNG IRHLYGPRPE PEPRPPTTTT PQPTAPPTVC PTGPPTVHPS ERPTAGPTGP PSAGPTGPPT AGPSTATTVP LSPVDDACNV NIFDAIAEIG NQLYLFKDGK YWRFSEGRGS RPQGPFLIAD KWPALPRKLD SVFEERLSKK LFFFSGRQVW VYTGASVLGP RRLDKLGLGA DVAQVTGALR SGRGKMLLFS GRRLWRFDVK AQMVDPRSAS EVDRMFPGVP LDTHDVFQYR EKAYFCQDRF YWRVSSRSEL NQVDQVGYVT YDILQCPED Biological Activity Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is 16371.30 pmol/min/µg, as measured under the described conditions. Appearance Lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ , pH 7.5. Endotoxin Level <1 EU/µg, determined by LAL method. Reconstitution It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is		YSACTTDGRS	DGYRWCATTA	NYDRDKLFGF	CPTRADSTVM
MYPMYRFTEG PPLHKDDVNG IRHLYGPRPE PEPRPPTTTT PQPTAPPTVC PTGPPTVHPS ERPTAGPTGP PSAGPTGPPT AGPSTATTVP LSPVDDACNV NIFDAIAEIG NQLYLFKDGK YWRFSEGRGS RPQGPFLIAD KWPALPRKLD SVFEERLSKK LFFFSGRQVW VYTGASVLGP RRLDKLGLGA DVAQVTGALR SGRGKMLLFS GRRLWRFDVK AQMVDPRSAS EVDRMFPGVP LDTHDVFQYR EKAYFCQDRF YWRVSSRSEL NQVDQVGYVT YDILQCPED Biological Activity Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is 16371.30 pmol/min/µg, as measured under the described conditions. Appearance Lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ , pH 7.5. Endotoxin Level It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is		GGNSAGELCV	FPFTFLGKEY	STCTSEGRGD	GRLWCATTSN
PQPTAPPTVC PTGPPTVHPS ERPTAGPTGP PSAGPTGPPT AGPSTATTVP LSPVDDACNV NIFDAIAEIG NQLYLFKDGK YWRFSEGRGS RPQGPFLIAD KWPALPRKLD SVFEERLSKK LFFFSGRQVW VYTGASVLGP RRLDKLGLGA DVAQVTGALR SGRGKMLLFS GRRLWRFDVK AQMVDPRSAS EVDRMFPGVP LDTHDVFQYR EKAYFCQDRF YWRVSSRSEL NQVDQVGYVT YDILQCPED Biological Activity Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is 16371.30 pmol/min/µg, as measured under the described conditions. Appearance Lyophilized powder. Formulation Lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ , pH 7.5. Endotoxin Level <1 EU/µg, determined by LAL method. Reconsititution It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is		FDSDKKWGFC	PDQGYSLFLV	AAHEFGHALG	LDHSSVPEAL
A G P S T A T T V P L S P V D D A C N V N I F D A I A E I G N Q L Y L F K D G K Y W R F S E G R G S R P Q G P F L I A D K W P A L P R K L D S V F E E R L S K K L F F F S G R Q V W V Y T G A S V L G P R R L D K L G L G A D V A Q V T G A L R S G R G K M L L F S G R R L W R F D V K A Q M V D P R S A S E V D R M F P G V P L D T H D V F Q Y R E K A Y F C Q D R F Y W R V S S R S E L N Q V D Q V G Y V T Y D I L Q C P E D Biological Activity Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is 16371.30 pmol/min/μg, as measured under the described conditions. Appearance Lyophilized powder. Formulation Lyophilized from a 0.2 μm filtered solution of 20 m M Tris-HCl, 2 m M CaCl ₂ , 150 m M NaCl, 0.05% Brij35(w/v), p H 7.5 or 20 m M Tris-HCl, 150 m M NaCl, 2 m M CaCl ₂ , p H 7.5. Endotoxin Level <1 EU/μg, determined by LAL method. Reconsititution It is not recommended to reconstitute to a concentration less than 100 μg/m L in ddH ₂ O. For long term storage it is		MYPMYRFTEG	PPLHKDDVNG	IRHLYGPRPE	
Y W R F S E G R G S R P Q G P F L I A D K W P A L P R K L D S V F E E R L S K K L F F F S G R Q V W V Y T G A S V L G P R R L D K L G L G A D V A Q V T G A L R S G R G K M L L F S G R R L W R F D V K A Q M V D P R S A S E V D R M F P G V P L D T H D V F Q Y R E K A Y F C Q D R F Y W R V S S R S E L N Q V D Q V G Y V T Y D I L Q C P E D Biological Activity Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is 16371.30 pmol/min/μg, as measured under the described conditions. Appearance Lyophilized powder. Formulation Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ , pH 7.5. Endotoxin Level <1 EU/μg, determined by LAL method. Reconsititution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is		PQPTAPPTVC	PTGPPTVHPS	ERPTAGPTGP	PSAGPTGPPT
L F F F S G R Q V W V Y T G A S V L G P R R L D K L G L G A D V A Q V T G A L R S G R G K M L L F S G R R L W R F D V K A Q M V D P R S A S E V D R M F P G V P L D T H D V F Q Y R E K A Y F C Q D R F Y W R V S S R S E L N Q V D Q V G Y V T Y D I L Q C P E D Biological Activity Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is 16371.30 pmol/min/μg, as measured under the described conditions. Appearance Lyophilized powder. Formulation Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ , pH 7.5. Endotoxin Level <1 EU/μg, determined by LAL method. Reconstitution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is		AGPSTATTVP	LSPVDDACNV	NIFDAIAEIG	NQLYLFKDGK
S G R G K M L L F S L D T H D V F Q Y R L M F D V K A Q M V D P R S A S E V D R M F P G V P L D T H D V F Q Y R E K A Y F C Q D R F Y W R V S S R S E L N Q V D Q V G Y V T Y D I L Q C P E D Biological Activity Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is 16371.30 pmol/min/μg, as measured under the described conditions. Appearance Lyophilized powder. Formulation Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ , pH 7.5. Endotoxin Level <1 EU/μg, determined by LAL method. Reconsititution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is		YWRFSEGRGS	•	KWPALPRKLD	SVFEERLSKK
L D T H D V F Q Y R Y D I L Q C P E D Biological Activity Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is 16371.30 pmol/min/μg, as measured under the described conditions. Appearance Lyophilized powder. Formulation Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ , pH 7.5. Endotoxin Level 41 EU/μg, determined by LAL method. It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is		LFFFSGRQVW	VYTGASVLGP	RRLDKLGLGA	DVAQVTGALR
Biological Activity Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is 16371.30 pmol/min/μg, as measured under the described conditions. Appearance Lyophilized powder. Formulation Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ , pH 7.5. Endotoxin Level 41 EU/μg, determined by LAL method. It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is		SGRGKMLLFS	GRRLWRFDVK	AQMVDPRSAS	EVDRMFPGVP
Biological ActivityMeasured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is 16371.30 pmol/min/μg, as measured under the described conditions.AppearanceLyophilized powder.FormulationLyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ pH 7.5.Endotoxin Level<1 EU/μg, determined by LAL method.		•	EKAYFCQDRF	YWRVSSRSEL	NQVDQVGYVT
pmol/min/μg, as measured under the described conditions. Appearance Lyophilized powder. Formulation Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ , pH 7.5. Endotoxin Level <1 EU/μg, determined by LAL method. Reconsititution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is		YDILQCPED			
pmol/min/μg, as measured under the described conditions. Appearance Lyophilized powder. Formulation Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ , pH 7.5. Endotoxin Level <1 EU/μg, determined by LAL method. Reconsititution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is					
Appearance Lyophilized powder. Formulation Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ , pH 7.5. Endotoxin Level <1 EU/μg, determined by LAL method. Reconsititution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is	Biological Activity	Measured by its ability to o	cleave the fluorogenic pepti	de substrate, Mca-PLGL-Dpa	a-AR-NH2. The specific activity is 16371.30
Formulation Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ , pH 7.5. Endotoxin Level <1 EU/μg, determined by LAL method. Reconsititution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is	,	pmol/min/μg, as measured	d under the described cond	itions.	, ,
Formulation Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM Tris-HCl, 150 mM NaCl, 2 mM CaCl ₂ , pH 7.5. Endotoxin Level <1 EU/μg, determined by LAL method. Reconsititution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is	Annearance	Lyonhilized powder			
Tris-HCl, 150 mM NaCl, 2 mM CaCl2, pH 7.5. Endotoxin Level <1 EU/μg, determined by LAL method. Reconsititution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is	Appearance	Lyopinized powder.			
Tris-HCl, 150 mM NaCl, 2 mM CaCl2, pH 7.5. Endotoxin Level <1 EU/μg, determined by LAL method. Reconsititution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is	Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 2 mM CaCl ₂ , 150 mM NaCl, 0.05% Brii35(w/v), pH 7.5 or 20 n			1 NaCl, 0.05% Brij35(w/v), pH 7.5 or 20 mM
Reconsititution It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O. For long term storage it is		Tris-HCl, 150 mM NaCl, 2 m	nM CaCl2, pH 7.5.	-	
Reconsititution It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O. For long term storage it is					
	Endotoxin Level	<1 EU/µg, determined by LAL method.			
	Peconsititution	It is not recommended to	reconstitute to a concentrat	tion less than 100 ug/ml in a	IdH-O For long term storage it is
recommended to add a carrier protein (0.170 BBA, 370 HBA, 1070 FB3 of 370 Heriatose).	Reconstitution				
		recommended to add a ca	inei piotein (0.1% b3A, 5%	113A, 1070 FD3 01 370 Heliali	υοτ <i>)</i> .

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Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

MMP-9 protein, a matrix metalloproteinase, plays a crucial role in the localized breakdown of the extracellular matrix and facilitates leukocyte migration. It has been suggested that MMP-9 may also be involved in bone osteoclastic resorption.

Additionally, MMP-9 cleaves KiSS1 at a Gly-|-Leu bond and NINJ1 to generate the secreted form of ninjurin-1. Furthermore, it is known to cleave type IV and type V collagen, resulting in the production of large C-terminal three quarter fragments and shorter N-terminal one quarter fragments. While MMP-9 degrades fibronectin, it does not have an impact on laminin or Pzpeptide.

Caution: Product has not been fully validated for medical applications. For research use only.

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