

SEQUENCE LISTING

<110> Seattle Children's Hospital
(DBA Seattle Children's Research Institute)

<120> DEFINED COMPOSITION GENE MODIFIED T-CELL
PRODUCTS

<130> SP100133SGA

<150> 62/088363

<151> 2014-12-05

<160> 7

<170> FastSEQ for windows Version 4.0

<210> 1

<211> 12

<212> PRT

<213> Artificial Sequence

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<223> Modified IgG4 hinge region

<400> 1

Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro
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<213> Artificial Sequence

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Tyr Gly Pro Pro Cys Pro Pro Cys Pro
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Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro
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 <223> CD28 transmembrane domain

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 Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp Val
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 <211> 42
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<220>
 <223> 4-1BB domain

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 Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe
 20 25 30
 Pro Glu Glu Glu Gly Gly Cys Glu Leu
 35 40

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 <211> 112
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<220>
 <223> CD3-zeta domain

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 Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly
 1 5 10 15
 Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr
 20 25 30
 Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys
 35 40 45
 Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys
 50 55 60
 Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg
 65 70 75 80
 Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala
 85 90 95
 Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 100 105 110