

## IGF1-R

insulin-like growth factor 1 receptor

Recombinant Human Active Protein Kinase

HGNC Symbol: IGF1R

Synonyms: CD221, IGFIR, IGFR, JTK13

Product No.: 0179-0000-1

Lot: 012

**Description:** Human IGF1-R C-terminal fragment, amino acids M<sub>954</sub>-C<sub>1367</sub> (as in [NCBI/Protein](#) entry NP\_000866.1), N-terminal GST-HIS<sub>6</sub> fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

**Product identity:** IGF1-R Lot 012, was confirmed as IGF1-R by mass spectroscopy LC-ESI-MS/MS

**Theoretical MW**<sub>Fusion Protein</sub>: 76,532 Da

**Expression host:** Sf9 insect cells

**Purification:** GST-Affinity Chromatography

**Activation:** This kinase was not activated by special procedures

**Storage buffer:** 50 mM TRIS-HCl pH 8.0, 100 mM NaCl, 5 mM DTT, 4 mM reduced glutathione, 20 % glycerol

**Storage temperature:** -80°C

For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10µl are not advisable. Avoid repeated freeze-thaw cycles!

**Protein concentration:** 0.183 µg/µl

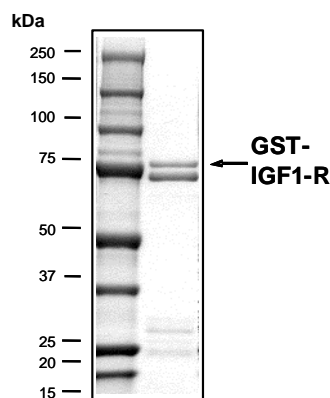
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

**Biochemical Parameters:**

Specific kinase activity (P<sub>i</sub> transfer): 250 pmol/µg × min

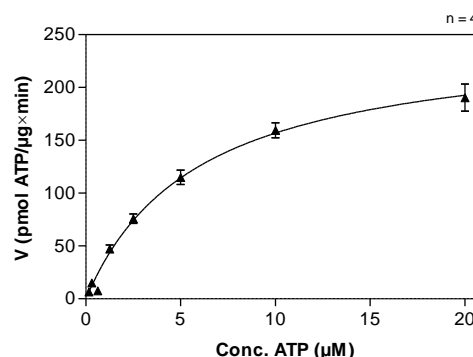
ATP-K<sub>M</sub>: 5.9 µM

**IGF1-R Lot 012:**  
Coomassie stain



2.0 µg GST-IGF1-R

**IGF1-R Lot 012:**  
Determination of V<sub>max</sub> and K<sub>M</sub> value for ATP



**Determination of K<sub>M</sub> value & Specific activity:**

- Assay conditions:
  - 60 mM HEPES-NaOH, pH 7.5
  - 3 mM MgCl<sub>2</sub>
  - 3 mM MnCl<sub>2</sub>
  - 3 µM Na-orthovanadate
  - 1.2 mM DTT
  - 50 µg/ml PEG<sub>20,000</sub>
  - ATP (variable)
  - Substrate: Poly(Glu,Tyr)<sub>4,1</sub> 10 µg/ml
  - Kinase: 0.8 µg/ml
- Filter binding assay
- MSFC membrane (Millipore)

**Additional assay technology:**

IGF1-R Lot 012 was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from Promega. ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

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## IGF1-R

Product No.: 0179-0000-1

GST-IGF1-R Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSM	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLP EML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAI PQID	KYLKSSKYIA	WPLQG WQATF	GGGDHPPKSD	PMGHHHHHG	RRRASVAAGI	240
241	<b>LVPRG</b> SPGLD	GIYARGIPML	<b>YVFHR</b> KRNNS	<b>RLGNGV</b> LYAS	<b>VNPEYF</b> SAAD	<b>VYVPDE</b> WEVA	300
301	<b>REKITMS</b> REL	<b>GQGSFG</b> MVYE	<b>GVAKGV</b> VKDE	<b>PETRVAI</b> KTV	<b>NEASMR</b> ERI	<b>EFLNEA</b> SMVK	360
361	<b>EFNCHH</b> VVRL	<b>LGVSQ</b> GQPT	<b>LVIMEL</b> MTRG	<b>DLKSYL</b> RSLR	<b>PEMENN</b> PVLA	<b>PPSLSK</b> MIQM	420
421	<b>AGEIAD</b> GMAY	<b>LNANKF</b> VHRD	<b>LAARNC</b> MVAE	<b>DFTVKI</b> GDFG	<b>MTRDIY</b> ETDY	<b>YRKGK</b> GLLP	480
481	<b>VRWMS</b> PESLK	<b>DGVFTT</b> YSDV	<b>WSFGV</b> LWEI	<b>ATLAEQ</b> PYQG	<b>LSNEQV</b> LRV	<b>MEGGLD</b> KPD	540
541	<b>NCPDML</b> FELM	<b>RCWQYN</b> PKM	<b>RPSFLE</b> I ISS	<b>IKEEME</b> PGFR	<b>EVSFYY</b> SEEN	<b>KLPEPE</b> LDL	600
600	<b>EPENMS</b> VPL	<b>DPSASS</b> SLP	<b>LPDRHS</b> GHKA	<b>ENGP</b> PGVLV	<b>LRSFDR</b> Q P	<b>YAHMNG</b> GRKN	660
661	<b>ERALPL</b> QSS	<b>TC</b>					720

1-218: GST Red: HIS6-tag Pink: Thrombin cleavage site blue: IGF1-R fragment

IGF1-R wt <sup>1</sup> Amino Acid Sequence							
1	MKSGSGGGSP	TSLWGLLFLS	AALS L WPTSG	EICGPGIDIR	NDYQQ LKRLE	NCTVIEGYLH	60
61	ILLISKAEDY	RSYRFPKLTV	ITEYLL LFRV	AGLES L GDLF	PNLTVIRGWK	LFYNYALVIF	120
121	EMTNLKDIGL	YNLRNITRGA	IRIEKNADLC	YLSTVDW SLI	LDAVSNNYIV	GNKPPKECGD	180
181	LCPGTMEEKP	MCEKTTINNE	YNYRCWTTNR	CQKMC PSTCG	KRACTENNEC	CHPECLGSCS	240
241	APDNDTACVA	CRHYYYAGVC	VPACPPNTYR	FEGWRCVDRD	FCANILSAES	SDSEG FVIHD	300
301	GECMQECPG	FIRNGSQSMY	CIPCEGPCPK	VCEEEKKTKT	IDSV TSAQML	QGCTIFKGNL	360
361	LINIRRGNNI	ASELENFMGL	IEVVTGYVKI	RHSHALV SLS	FLKNLRLI L G	EEQLEGNYSF	420
421	YVLDNQNLQQ	LWDWDHRNLT	IKAGKMYFAF	NPKLCVSEIY	RMEEVTGT KG	RQSKGDINTR	480
481	NNGERASCES	DVLHFTSTTT	SKNRIIITWH	RYRPPDYRDL	ISFTVYYKEA	PFKNVTEYDG	540
541	QDACGSNSWN	MVDVDLPPNK	DVEPGILLHG	LKPWTQYAVY	VKAVTLT MVE	NHIRGAKSE	600
600	ILYIRTNASV	PSIPLDVLSA	SNSSSQLIVK	WNPPSLPNGN	LSYYIVRWQR	QPQDGYLYRH	660
661	NYCSKDKIPI	RKYADGTIDI	EEVTENPKTE	VCGGEKG PCC	ACPKTEAEKQ	AEKEEA EYRK	720
721	VFENFLHNSI	FVPRPERKRR	DVMQVANTTM	SSRSRNTTAA	DTYNITDPEE	LETEY PPFES	780
781	RVDNKERTVI	SNLRPF TLYR	IDIHSCNHEA	EKLGCSASNF	VFARTMPAEG	ADDIPGPVTW	840
841	EPRPEN SIFL	KWPEPENPNG	LILMYEIKYG	SQVEDQRECV	SRQEYRKYGG	AKLNRLNPGN	900
901	YTARIQATSL	SGNGSWTDPV	FFYVQAKTGY	ENFIHLI IAL	PVAVLLIVGG	LVIMLYVFHR	960
961	<b>KRNNSRL</b> GNG	<b>VLYASV</b> NPEY	<b>FSAADV</b> VVPD	<b>EWEVARE</b> KIT	<b>MSRELG</b> QGSF	<b>GMVYEG</b> VAKG	1020
1021	<b>VVKDEP</b> ETRV	<b>AIKTVNE</b> AAS	<b>MRERIE</b> FLNE	<b>ASVMKE</b> FNCH	<b>HVVRLL</b> GVVS	<b>QGQPTL</b> VIME	1080
1081	<b>LMTRGD</b> LKSY	<b>LRSLRP</b> EMEN	<b>NPVLAP</b> PSLS	<b>KMIQMA</b> GEIA	<b>DGMAYL</b> NANK	<b>FVHRDL</b> AARN	1140
1141	<b>CMVAED</b> F TVK	<b>IGDFGM</b> TRDI	<b>YETDYY</b> RKGG	<b>KGLLPV</b> RWMS	<b>PESLKD</b> GVFT	<b>TYSDVW</b> SFGV	1200
1201	<b>VLWEIAT</b> LAE	<b>QPYQGL</b> SNEQ	<b>VLRFM</b> EGGL	<b>LDKPDN</b> CPDM	<b>LFELMR</b> MCWQ	<b>YNPKMR</b> PSFL	1260
1261	<b>EIISSI</b> KEEM	<b>EPGFREV</b> SFY	<b>YSEENK</b> LPEP	<b>EELDLE</b> PENM	<b>ESVPLD</b> PSAS	<b>SSSLPL</b> DRH	1320
1321	<b>SGHKAEN</b> GPG	<b>PGVLVLR</b> ASF	<b>DERQPY</b> AHMN	<b>GGRKNER</b> ALP	<b>LPQSST</b> C		1380

blue: IGF1-R sequence expressed in recombinant protein

<sup>1</sup>[NCBI/Protein](#) accession number NP\_000866.1