

INS-R

insulin receptor

Recombinant Human Active Protein Kinase

HGNC Symbol: INSR

Synonyms: CD220, HHF5, IR

Product No.: 0122-0000-1

Lot: 006

Description: Human INS-R, C-terminal fragment, amino acids G₉₈₉-S₁₃₈₂ (as in [NCBI/Protein](#) entry NP_000199.2), N-terminal GST fusion protein, expressed in Sf9 insect cells

Product identity: INS-R, Lot 006, was confirmed as INS-R by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 70,392 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: This kinase was not activated by special procedures

Storage buffer: 50 mM HEPES pH 7.5, 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: 0.189 µg/µl

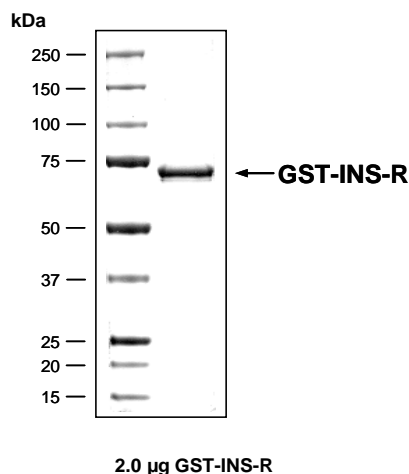
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

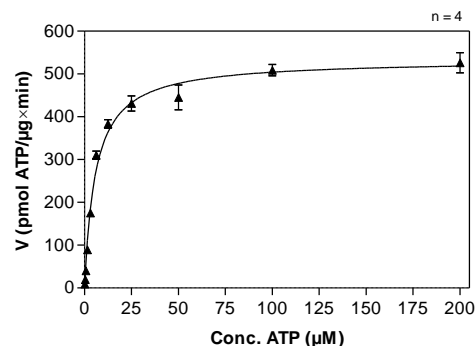
Specific kinase activity (P_i transfer): 533 pmol/µg × min

ATP-K_M: 5.8 µM

INS-R Lot 006: Coomassie stain



INS-R Lot 006: Determination of V_{max} and K_M value for ATP



Determination of K_M value & Specific activity:

- Assay conditions:
 - 60 mM HEPES-NaOH, pH 7.5
 - 3 mM MgCl₂
 - 3 mM MnCl₂
 - 3 µM Na-orthovanadate
 - 1.2 mM DTT
 - 50 µg/ml PEG_{20,000}
 - ATP (variable)
 - Substrate: Poly(Ala,Glu,Lys,Tyr)_{6,2,5,1}; 80 µg/ml
 - Kinase: 1 µg/ml
- Filter binding assay
- MSFC membrane (Millipore)

Additional assay technology:

INS-R Lot 006 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

This product was manufactured at ProQinase in Freiburg, Germany, and is for in vitro research use only, not for use in humans or animals. ProQinase disclaims any warranty explicitly or implied that the use of the product or parts of the product is free from third party intellectual property claims unless this is explicitly stated.

INS-R

Product No.: 0122-0000-1

GST-INS-R Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQ SMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLP EML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAI PQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PD GPLYASSN	PEYLSASDVF	240
241	PCSVYVPDEW	EVSREKITLL	RELGQGSFGM	VYEGNARDII	KGEAETRVAV	KTVNESASLR	300
301	ERIEFLNEAS	VMKGFTCHHV	VRLLGVVSKG	QPTLVVMELM	AHGDLKSYLR	SLRPEAENNP	360
361	GRPPPTLQEM	IQMAAEIADG	MAYLNAKKFV	HRDLAARNCM	VAHDFTVKIG	DFGMTRDIYE	420
421	TDYYRKGKGG	LLPVRWMAPE	SLKDGVFVTT	SDMWSFGVVL	WEITSLAEQP	YQGLSNEQVL	480
481	KFVMDGGYLD	QPDNCPERT	DLMRMCWFN	PNMRPTFLEI	VNLLKDDLHP	SFPEVSFFHS	540
541	EENKAPESSE	LEMEFEDMEN	VPLDRSSHQC	REEAGGRDGG	SSLGFKRSYE	EHIPYTHMNG	600
601	GKKNGRILTL	PRSNPS					660

1-218: GST **blue**: INS-R fragment **boxed**: variation from RefSeq

INS-R wt ¹ Amino Acid Sequence							
1	MATGRRGAA	AAPLLVAVAA	LLLGAAGHLY	PGEVCPGMDI	RNNLTRLHEL	ENCSVIEGHL	60
61	QILLMFKTRP	EDFRDLSFPK	LIMITDYLLL	FRVYGLESJK	DLFPNLTVIR	GSRLFFNYAL	120
121	VIFEMVHLKE	LGLYNLMNIT	RGSVRIEKNN	ELCYLATIDW	SRILDSVEDN	YIVLNKDDNE	180
181	ECGDICPGTA	KGKTNCPATV	INGQFVERCW	THSHCQKVC	TICKSHGCTA	EGLCCHSECL	240
241	GNCSPDDPT	KCVACRNFYL	DGRCVETCPP	PYYHFQDWRC	VNFSFCQDLH	HKCKNSRRQG	300
301	CHQYVIHNNK	CIPECPSGYT	MNSSNLLCTP	CLGPCPKVCH	LLEGEKTIDS	V TSAQELRGC	360
361	TVINGSLIIN	IRGGNNLAAE	LEANLGLIEE	ISGYLKIRRS	YALVSLSFFR	KLRLIRGETL	420
421	EIGNYSFYAL	DNQNLRLQWD	WSKHNLITIQ	GKLFHYHNP	LCLSEIHKME	EVSQTKGRQE	480
481	RNDIALKTNG	DQASCENELL	KFSYIRTSFD	KILLRWEPY	PPDFRDLLGF	MLFYKEAPYQ	540
541	NVTEFDGQDA	CGSNSWTVVD	IDPPLRSNDP	KSQNHGWL	RGLKPWTQYA	IFVKTLLVTF	600
601	DERRTYGAKS	DIIYVQTDAT	NPSVPLDPI	VSNSSSQIIL	KWKPPSDPNG	NITHYLVFWE	660
661	RQAEDSELF	LDYCLKGLKL	PSRTWSPFFE	SEDSQKHNS	EYEDSAGECC	SCPKTDSQIL	720
721	KELEESSFRK	TFEDYLHN	VVPRKTSSGT	GAEDPRPSRK	RRSLGDVGNV	TVAVPTVAAF	780
781	PNTSSTSVPT	SPEEHRPFEK	VVNKESLVIS	GLRHFTGYRI	ELQACNQDTP	EERCSVAAYV	840
841	SARTMPEAKA	DDIVGPVTHE	IFENNVVHLM	WQEPKEPNGL	IVLYEVSYRR	YGDEELHLCV	900
901	SRKHFALERG	CRLRGLSPGN	YSVRIRATSL	AGNGSWTEPT	YFYVTDYLDV	PSNIAKIIIG	960
961	PLIFVFLFSV	VIGSIYLFRL	KRQPDGPL GP	LYASSNPEYL	SASDVFPCSV	YVPDEWEVSR	1020
1021	EKITLLRELG	QGSFGMVYEG	NARDIIKGEA	ETRVAVKTVN	ESASLRERIE	FLNEASVMKG	1080
1081	FTCHHVRL	GVVSKGQPTL	VVMELMAHGD	LKSYLRSLRP	EAENNPGRPP	PTLQEMIQMA	1140
1141	AEIADGMAYL	NAKKFVHRDL	AARNCMVAHD	FTVKIGDFGM	TRDIYETDYY	RKGGKLLPV	1200
1201	RWMAPESLKD	GVFTTSSDMW	SFGVVLWEIT	SLAEQPYQGL	SNEQVLKFM	DGGYLDQPDN	1260
1261	CPERTDLMR	MCWFNKMR	PTFLEIVNLL	KDDLHPSFPE	VFFFHSEENK	APESSELEME	1320
1321	FEDMENVPLD	RSSHCQREEA	GGRDGGSSLG	FKRSYEEHIP	YTHMNGGKKN	GRILTLPRSN	1380
1381	PS						1440

blue: INS-R sequence expressed in recombinant protein **Red**: variant in recombinant protein

¹[NCBI/Protein](https://www.ncbi.nlm.nih.gov/protein/NP_000199.2) accession number NP_000199.2

This product was manufactured at ProQinase in Freiburg, Germany, and is for in vitro research use only, not for use in humans or animals. ProQinase disclaims any warranty explicitly or implied that the use of the product or parts of the product is free from third party intellectual property claims unless this is explicitly stated.