

ProQinase™ EGF-R d747-749/A750P

epidermal growth factor receptor

Recombinant Human Active Protein Kinase

HGNC Symbol: EGFR

Synonyms: ERBB, ERBB1

Product No.: 1038-0000-1

Lot: 001

Description:

Human EGF-R, C-terminal fragment, amino acids H₆₇₂-A₁₂₁₀ (as in [NCBI/Protein](#) entry NP_005219.2), amino acids 747-749 deleted, A750P mutant, N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: EGF-R d747-749/A750P Lot 001, was confirmed as EGF-R by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 88,799 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, 15 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: 0.150 µg/µl

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

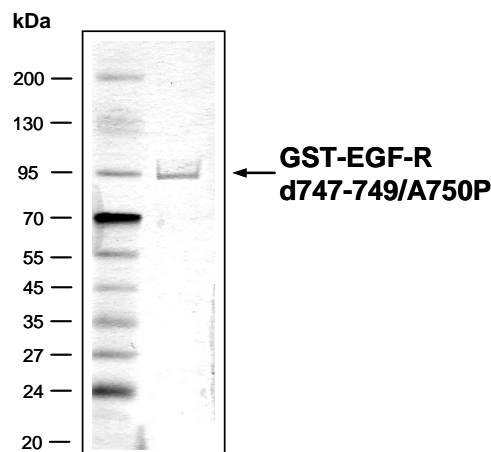
Biochemical Parameters:

Specific kinase activity (P_i transfer): 168 pmol/µg × min
ATP-K_M: 4.3µM

Additional assay technology:

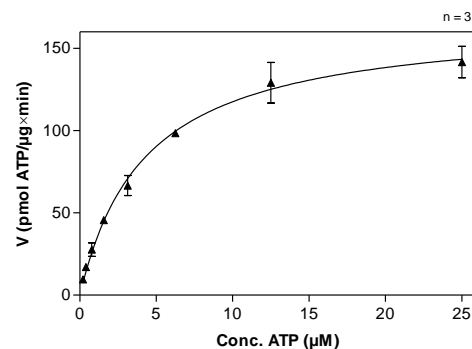
EGF-R d747-749/A750P Lot 001 was also successfully tested by Reaction Biology for the use with the ADP-Glo™ Kinase assay from Promega
ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

EGF-R d747-749/A750P Lot 001:
Coomassie stain



1.0 µg GST-EGF-R d747-749/A750P

EGF-R d747-749/A750P Lot 001:
Determination of V_{max} and K_M value for ATP



- 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(Glu:Tyr)_{4:1}; 5 µg/ml
Kinase: 1 µg/ml
- Filter binding assay
MSFC membrane (Millipore)

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GST-EGF-R d747-749/A750P Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLP EML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAI PQID	KYLKSSKYIA	WPLQG WQATF	GGGDHPPKSD	PMG HHHHHG	RDS LEVLFQ	240
241	PLAMGHIVRK	RTLRLQLQER	ELVEPLTPSG	EAPNQALLRI	LKETEFKKIK	VLGSGAFGTV	300
301	YKGLWIPEGE	KVKIPVAIKE	PTSPKANKEI	LDEAYVMASV	DNPVCRLLG	ICLTSTVQLI	360
361	TQLMPFGCLL	DYVREHKDNI	GSQYLLNWCV	QIAKGMNYLE	DRRLVHRDLA	ARNVLVKTPQ	420
421	HVKITDFGLA	KLLGAEKEY	HAEGGKVPK	WMALESILHR	IYTHQSDVWS	YGVTVWELMT	480
481	FGSKPYDGIP	ASEISSILEK	GERLPQPPIC	TIDVYMIMVK	CWMIDADSRP	KFRELIIEFS	540
541	KMARDPQRYL	VIQGD ERMHL	PSPTDSNFYR	ALMDEEDMDD	VVDAEYLIP	QQGFFSSPST	600
600	SRTPLLSLSL	ATSNNSTVAC	IDRNLQSCPI	IKEDSFLQRY	SSDPTGALTE	DSIDDTFLPV	660
661	PEYINQSVPK	RPAGSVQNPV	YHNQPLNPAP	SRDPHYQDPH	STAVGNPEYL	NTVQPTCVNS	720
721	TFDSPAHWQ	KGSHQISLDN	PDYQDFFPK	EAKPNGIFKG	STAENAEYLR	VAPQSSEFIG	780
781	A						840

1-218: GST **Red**: HIS6-tag **Green**: 3C cleavage site **blue**: EGF-R fragment **boxed**: variation from RefSeq

EGF-R wt ¹ Amino Acid Sequence							
1	MRPSGTAGAA	LLALLAALCP	ASRALEEKV	COGTSNKLTQ	LGT FEDHFLS	LQRMFN NCEV	60
61	VLGNLEITYV	QRNYDLSFLK	TIQEVAGYVL	IALNTVERIP	LENLQIIRGN	MYYENS YALA	120
121	VLSNYDANKT	GLKELPMRNL	QEILHGAVRF	SNNPALCNVE	SIQWRDIVSS	DFLSNM SMDF	180
181	QNHLGSCQKC	DPSCPNGSCW	GAGEENCQKL	TKIICAQQCS	GRCRGKSPSD	CCHNQCAAGC	240
241	TGPRES DCLV	CRKFRDEATC	KDTCPPMLY	NPTTYQMDVN	PEGKYSFGAT	CVKKCPRNVV	300
301	VTDHGSCVRA	CGADSYEMEE	DGVRKCKKCE	GPCRKVCNGI	GIGEFKDSL S	INATNIKHF K	360
361	NCTSISGDLH	ILPVAFRGDS	FTHTPPLDPQ	ELDILKTVKE	ITGFLLIQAW	PENRTDLHAF	420
421	ENLEIIRGRT	KQHGQFSLAV	VSLNITSLGL	RSLKEISDGD	VIISGNKNLC	YANTINWKKL	480
481	FGTSGQKTKI	ISNRGENSCK	ATGQVCHALC	SPEGCWGPEP	RDCVSCRNV S	RGRECVDKCN	540
541	LLEGE PFEV	ENSECIQCHP	ECLPQAMNIT	CTGRGPDNCI	QCAHYIDGPH	CVKTC PAVGM	600
600	GENNTLVWKY	ADAGHVCHLC	HPNCTYGCTG	PGLEGCP TNG	PKIPSIATGM	VGALLL LLVV	660
661	ALGIGLFMR R	RHIVRKRTL R	RLQERELVE	PLTPSGEAPN	QALLRILKET	EFKKIKVLGS	720
721	GAFGTVYKGL	WIPEGEKVKI	PVAIKELREA	TSPKANKEIL	DEAYVMASVD	NPVCRL LLI	780
781	CLTSTVQLIT	QLMPFGCLLD	YVREHKDNIG	SOYLLNWCVQ	IAKGMNYLED	RRLVHRDLAA	840
841	RNVLVKTPQH	VKITDFGLAK	LLGAEKEYH	AEGGKVPK W	MALESILHRI	YTHQSDVWSY	900
901	GVTVWELMTF	GSKPYDGIPA	SEISSILEKG	ERLPQPPICT	IDVYMIMVK	WMIDADSRPK	960
961	FRELIIEFSK	MARDPQRYLV	IQGD ERMHL P	SPTDSNFYRA	LMDEEDMDDV	VDAEYLIPQ	1020
1021	QGFFSSPSTS	RTPLLSLSA	TSNNSTVACI	DRNLQSCPI	KEDSFLQRY S	SDPTGALTE D	1080
1081	SIDDTFLPVP	EYINQSVPKR	PAGSVQNPVY	HNQPLNPAPS	RDPHYQDPHS	TAVGNPEYLN	1140
1141	TVQPTCVNST	FDSPAHWQK	GSHQISLDNP	DYQDFFPKE	AKPNGIFKGS	TAENAEYLRV	1200
1201	APQSSEFIGA						1260

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

¹[NCBI/Protein](#) accession number NP_005219.2