

ERBB4

v-erb-a erythroblastic leukemia viral oncogene homolog 4

Recombinant Human Active Protein Kinase

HGNC Symbol: ERBB4

Synonyms: HER4

Product No.: 0109-0000-1

Lot: 007

Description: Human ERBB4, C-terminal fragment, amino acids R₆₇₆-V₁₃₀₇ (as in NCBI/Protein entry NP_005226.1), N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: ERBB4 Lot 007, was confirmed as ERBB4 by specific Western blotting using anti ERBB4 antibody

Theoretical MW_{Fusion Protein}: 102,062 Da

Expression: Baculovirus infected Sf9 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, 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: 0.232 µg/µl

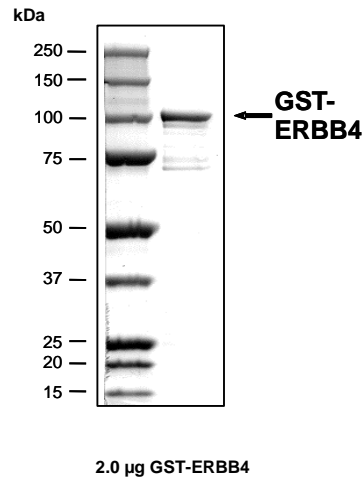
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

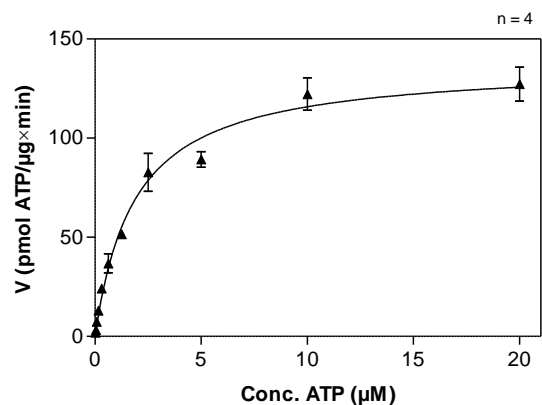
Specific kinase activity (P_i transfer): 137 pmol/µg × min

ATP-K_M: 1.9 µM

**ERBB4 Lot 007:
Coomassie stain**



**ERBB4 Lot 007:
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(Glu:Tyr)_{4:1} 20 µg/ml
 - Kinase: 1.0 µg/ml
- Filter binding assay
 - MSFC membrane (Millipore)

Additional assay technology: ERBB4 Lot 007

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



ERBB4

Product No.: 0109-0000-0

ERBB4 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPOID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	RRRASVAAGI	240
241	LVPRGSPGLD	GICSIEEFRR	PRRSIKKKR	ALRRFLETEL	VEPLTPSGTA	PNQAQLRILK	300
301	ETELKRVKVL	GSGAFGTVYK	GIWVPEGETV	KIPVAIKILN	ETTGPKANVE	FMDEALIMAS	360
361	MDHPLVRL	GVCLSPITQL	VTQLMPHGCL	LEYVHEHKN	IGSQLLLNWC	VQIAKGMMYL	420
421	EERRLVHRDL	AARNVLVKSP	NHVKITDFGL	ARLLEGEDEK	YNADGGKMPI	KWMALECIHY	480
481	RKFTHQSDVW	SYGVTIWELM	TFGGKPYDGI	PTREIPDLLE	KGERLPQMPI	CTIDVYVMV	540
541	KCWMIDADSR	PKFKELAAEF	SRMARDPQRY	LVIQGGDRMK	LSPNDKFF	QNLLDEEDLE	600
601	DMDAAEYLV	PQAFNIPPI	YTSRARIDSN	RSEIGHSPPP	AYTPMSGNQF	VYRDGGFAAE	660
661	QGVSVPYRAP	TSTIPEAPVA	QGATAEIFDD	SCCNGTLRKP	VAPHVQEDSS	TQRYSDPTV	720
721	FAPERSPRGE	LDEEGYMPM	RDKPKQEYLN	PVEENPFVSR	RKNGDLQALD	NPEYHNASNG	780
781	PPKADEYVN	EPLYLNTFAN	TLGKAEYLKN	NILSMPEKAK	KAFDNPDYWN	HSLPPRSTLQ	840
841	HPDYLQEYST	KYFYKQNGRI	RPIVAENPEY	LSEFSLKPGT	VLPPPPYRHR	NTV	900

1-218: GST **Red:** HIS6-tag **Pink:** Thrombin cleavage site **blue:** ERBB4 fragment

ERBB4 wt ¹ Amino Acid Sequence							
1	MKPATGLWVW	VSLLVAAQTV	QPSDSQSVCA	GTENKLSLS	DLEQQYRALR	KYYENCEVVM	60
61	GNLEITSIEH	NRDLSFLRSV	REVTGYVLVA	LNQFRYLPLE	NLRIIRGTKL	YEDRYALAI	120
121	LNVRKDGNGF	LQELGLKNLT	EILNGGVYVD	QNKFLCYADT	IHWQDIVRNP	WPSNLTIVST	180
181	NGSSGGRCH	KSCTGRCWGP	TENHCQTLTR	TVCAEQCDGR	CYGPVSDCC	HRECAGGCSG	240
241	PKDTCFACM	NFNDSGACVT	QCPQTFVYNP	TTFQLEHNFN	AKYTYGAFCV	KKCPHNFVVD	300
301	SSSCVRACPS	SKMEVEENGI	KMCKPCTDIC	PKACDGIGTG	SLMSAQTVD	SNIDKFINCT	360
361	KINGNLIFLV	TGIHGDPYNA	IEAIDPEKLN	VFRTVREITG	FLNIQSWPPN	MTDFSVFNSL	420
421	VTIGGRVLYS	GLSLLILKQQ	GITSLQFQSL	KEISAGNIYI	TDNSNLCYH	TINWTTLFST	480
481	INQRIVIRDN	RKAENCTAEG	MVCNHLCSSD	GCWGPDPQC	LSCRRFSRGR	ICIESCNLYD	540
541	GEFREFENG	ICVECDPQCE	KMEDGLLTCH	GPGPDNCTKC	SHFKDGPNCV	EKCPDGLQGA	600
601	NSFIFKYADP	DRECHPCHPN	CTQGCNGPTS	HDCIYYPWTG	HSTLPQHART	PLIAAGVIGG	660
661	LFILVIVGLT	FAVYVRRKSI	KKRALRRFL	ETELVEPLTP	SGTAPNQAQL	RILKETELKR	720
721	VKVLGSAFG	TVYKGIWVPE	GETVKIPVAI	KILNETTGPK	ANVEFMDEAL	IMASMDPHL	780
781	VRLGVLCLSP	TIQLVTQLMP	HGCLLEYVHE	HKNIGSQLL	LNWCVQIAG	MMYLEERRLV	840
841	HRDLAARNVL	VKSPNHVKIT	DFGLARLLEG	DEKEYNADGG	KMPIKMALE	CIHYRKFTHQ	900
901	SDVWSYGVTI	WELMTFGGKP	YDGIPTREIP	DLLEKGERLP	QPPICTIDVY	MVMVKWMID	960
961	ADSRPKFKEL	AAEFMRMARD	PQRYLVIQGD	DRMKLSPND	SKFFQNLLE	EDLEMMDAE	1020
1021	EYLVQAFNI	PPPIYTSRAR	IDSNRSEIGH	SPPPAYTPMS	GNQFVYRDGG	FAAEQGVSV	1080
1081	YRAPSTIPE	APVAQGATAE	IFDDSCCNGT	LRKPVAPHVQ	EDSSTQRYSA	DPTVFAPERS	1140
1141	PRGELDEEGY	MTPMRDKPKQ	EYLNPEENP	FVSRKNGDL	QALDNPEYHN	ASNGPPKAED	1200
1201	EYVNEPLYLN	TFANTLGKAE	YLKNNILSMP	EKAKAFDNP	DYWNHSLPPR	STLQHPDYLQ	1260
1261	EYSTKYFYKQ	NGRIRPIVAE	NPEYLSFSL	KPGTVLPPPP	YRHRNTVV		1320

blue: ERBB4 sequence expressed in fusion protein

¹NCBI/Protein accession number NP_005226.1