

ERBB2 wt

erb-b2 receptor tyrosine kinase 2

Recombinant Human Active Protein Kinase

HGNC Symbol: ERBB2

Synonyms: HER-2, NEU, NGL, TKR1, CD340

Product No.: 0108-0000-1

Lot: 015

Description: Human ERBB2 wt, C-terminal fragment, amino acids Q₆₇₉-V₁₂₅₅ (as in [NCBI/Protein](#) entry NP_004439.2), N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: ERBB2 wt Lot 015, was confirmed as ERBB2 wt by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 93,908 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: 0.224 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

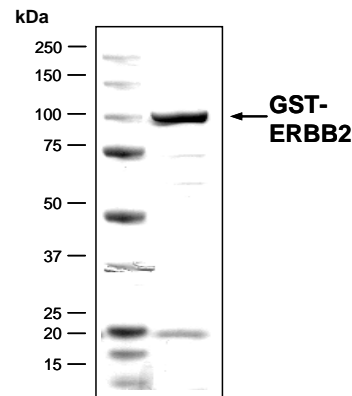
Biochemical Parameters:

Specific kinase activity (P_i transfer): 36 pmol/µg × min
ATP-K_M: 4.8 µM

Additional assay technology:

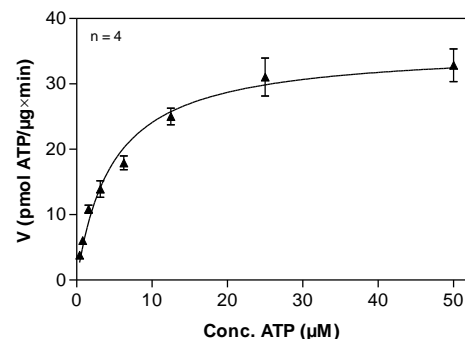
ERBB2 wt Lot 015 was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from Promega
ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

ERBB2 wt Lot 015: Coomassie stain



2.0 µg GST-ERBB2

ERBB2 wt Lot 015: 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}, 5 µg/ml
 - Kinase: 4 µg/ml
- Filter binding assay
MSFC membrane (Millipore)

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GST-ERBB2 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	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	GICSIEEFRP	PWQOKIRKYT	MRLLQETEL	VEPLTPSGAM	PNQAQMRILK	300
301	ETELRKVKVL	GSGAFGTVYK	GIWIPDGENV	KIPVAIKVLR	ENTSPKANKE	ILDEAYVMAG	360
361	VGSPYVSRLL	GICLTSTVQL	VTQLMPYGCL	LDHVRENRRGR	LGSQDLLNWC	MQIAKGMSTL	420
421	EDVRLVHRDL	AARNVLKSP	NHVKITDFGL	ARLLDIDETE	YHADGGKVPI	KWMALESILR	480
481	RRFTHQSDVW	SYGVTWVWELM	TFGAKPYDGI	PAREIPDLE	KGERLPQPI	CTIDVYMIMV	540
541	KCWMIDSECR	PRFRELVSEF	SRMARDPQRF	VVIQNEGLGP	ASPLDSTFYR	SLLEDDDMGD	600
601	LVDAAEYLVF	QQGFFCPDPA	PGAGGMVHHR	HRSSSTRSGG	GDLTLGLEPS	EEEAPRSPLA	660
661	PSEGAGSDVR	DGDLGMGAAK	GLQSLPTHDP	SPLQRYSEDP	TVPLPSETDG	YVAPLTCSPQ	720
721	PEYVNPQDVR	PQPPSPREGP	LPAARPAGAT	LERPCTLSPG	KNGVVKDVFA	FGGAVENPEY	780
781	LTPQGGAAPO	PHPPPAFSPA	FDNLYYWDQD	PPERGAPPST	FKGTPTAENP	EYLGLDVPV	840

1-218: GST Red: HIS6-tag Pink: Thrombin cleavage site blue: ERBB2 fragment

ERBB2 wt ¹ Amino Acid Sequence							
1	MELAALCRWG	LLLALLPPGA	ASTQVCTGTD	MKLRLPASPE	THLDMLRHLY	QGCQVVQGNL	60
61	ELTYLPTNAS	LSFLQDIQEV	QGYVLIAHNQ	VRQVPLQRLR	IVRGTQLFED	NYALAVLDNG	120
121	DPLNNTTPVT	GASPGGLREL	QLRSLTEILK	GGVLIQRNPQ	LCYQDTILWK	DIFHKNNQLA	180
181	LTLIDTNRSR	ACHPCSPMCK	GSRCWGESSE	DCQSLTRTVC	AGGCARCKGP	LPTDCCHEQC	240
241	AAGCTGPKHS	DCLACLHFNH	SGICELHCPA	LVTYNTDTFE	SMPNPEGRYT	FGASCVTACP	300
301	YNYLSTDVGS	CTLVCLPLNQ	EVTAEADGTR	CEKCSKPCAR	VCYGLGMEHL	REVRAVTSAN	360
361	IQEFAGCKKI	FGSLAFLPES	FDGDPASNTA	PLQPEQLQVF	ETLEEITGYL	YISAWPDSLP	420
421	DLSVFQNLQV	IRGRILHNGA	YSLTLQGLGI	SWLGLRSLRE	LGSGLALIH	NTHLCFVHTV	480
481	PWDQLFRNPH	QALLHTANRP	EDECVGEGLA	CHQLCARGHC	WPGPPTQCVN	CSQFLRGQEC	540
541	VEECRVLQGL	PREYVNAHRC	LPCHPECQPQ	NGSVTCFGPE	ADQCACAHA	KDPPFCVARC	600
601	PSGVKPDLSY	MPIWKFPDEE	GACQPCPINC	THSCVDLDDK	GCPAEQRASP	LTSIISAVVG	660
661	ILLVVVLGVV	FGILIKRRQQ	KIRKYTMRL	LQETELVEPL	TPSGAMPNQA	QMRILKETEL	720
721	RKVVLGSGA	FGTVYKGIWI	PDGENVKIPV	AIKVLRENTS	PKANKEILDE	AYVMAGVGSF	780
781	YVSRLGICL	TSTVQLVTQL	MPYGCLLDHV	RENRRGLRSQ	DLLNWCQIA	KGMSYLEDVR	840
841	LVHRDLAARN	VLVKSPPNHVK	ITDFGLARLL	DIDETEHAD	GKVPKIKWMA	LESILRRRFT	900
901	HQSDVWSYGV	TVWELMTFGA	KPYDGIIPARE	IPDLLEKGER	LPQPPICTID	VYMIMVKCWM	960
961	IDSECRPRFR	ELVSEFSRMA	RDPQRFVVIQ	NEDLGPASPL	DSTFYRSLE	DDDMGDLVDA	1020
1021	EEYLVPPQGF	FCPDPAPGAG	GMVHHRHRSS	STRSGGDLT	LGLEPSEEEA	PRSPLAPSEG	1080
1081	AGSDVFDGDL	GMGAAGLQS	LPTHDPSPLO	RYSEDPTVPL	PSETDGYVAP	LTCSPQPEYV	1140
1141	NQPDVRRPQP	SPREGPLPAA	RPAGATLERP	KTLSPGKNGV	VKDVFVAFGGA	VENPEYLTPO	1200
1201	GGAAPQPHPP	PAFSPAFDNL	YYWDQDPPER	GAPPSTFKGT	PTAENPEYLG	LDVPV	1260

blue: ERBB2 sequence expressed in recombinant protein

¹[NCBI/Protein](https://www.ncbi.nlm.nih.gov/protein/444439.2) accession number NP_004439.2

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