

ProQinase™ ERBB2 775YVMA776

erb-b2 receptor tyrosine kinase 2

Recombinant Human Active Protein Kinase

HGNC Symbol: ERBB2

Synonyms: CD340, HER2, MLN19, NGL, TKR1

Product No.: 1525-0000-1

Lot: 003

Description: Human ERBB2, C-terminal fragment, amino acids Q₆₇₉-V₁₂₅₅ (as in [NCBI/Protein](#) entry NP_004439.2) with a 775YVMA₇₇₆ insertion mutation, N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: ERBB2 775YVMA776 Lot 003, was confirmed as ERBB2 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 94,373 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: 0.109 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

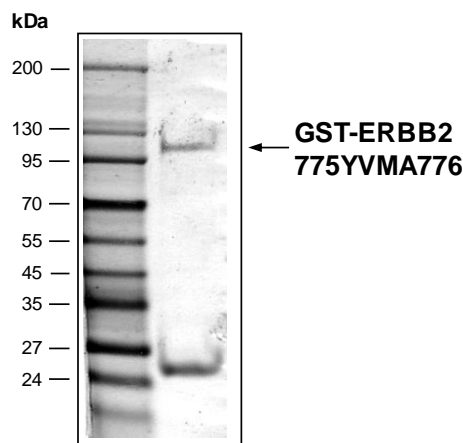
Biochemical Parameters:

Specific kinase activity (P_i transfer): 1.5 pmol/µg × min
ATP-K_M: 1.4 µM

Additional assay technology:

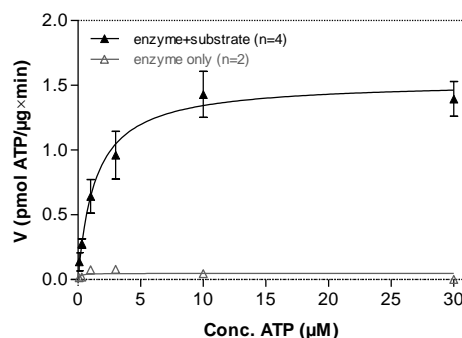
ERBB2 775YVMA776 Lot 003 was also successfully tested by Reaction Biology for the use with the ADP-Glo™ Kinase assay from Promega ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

ERBB2 775YVMA776 Lot 003: Coomassie stain



2.0 µg GST-ERBB2 775YVMA776

ERBB2 775YVMA776 Lot 003: 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: TRK-C-derived peptide, 40 µg/ml
 - ERBB2 775YVMA776: 2 µg/ml
- Filter binding assay
 - MSPH membrane (Millipore)

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GST-ERBB2 775YVMA776 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	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	ILDEAYVMAV	360
361	YMAVGVSPIV	SRLLGICLTS	TVQLVTQLMP	YGCLLDHVRE	NRRLGSDQL	LNWCMQIARK	420
421	MSYLEDVRLV	HRDLAARNVL	VKSPNHVKIT	DFGLARLLDI	DETEYHADGG	KVPIKWMALE	480
481	SILRRRFTHQ	SDVWSYGVTV	WELMTFGAKP	YDGIPAREIP	DLLEKGERLP	QPPICTIDVY	540
541	MIMVKCWMID	SECRPRFREL	VSEFSRMARD	PQRFVVIQNE	DLGPASPLDS	TFYRSLEED	600
601	DMGDLVDAEE	YLVPQGGFFC	PDPAPGAGGM	VHHRHRSST	RSGGGDLTLG	LEPSEEEAPR	660
661	SPLASEGAG	SDVFDGDLGM	GAAKGLQSLP	THDPSPLQRY	SEDPTVPLPS	ETDGYVAPLT	720
721	CSPQPEYVQ	DVVRPQPPSP	REGPLPAARP	AGATLERPKT	LSPGKNGVVK	DVFAFGGAVE	780
781	NPEYLTPOGG	AAQPHPPPA	FSPAFDNLYY	WDQPPPERGA	PPSTFKGTPT	AENPEYLGDL	840
841	VPV						900

1-218: GST **Red**: HIS6-tag **Pink**: Thrombin cleavage site **blue**: ERBB2 fragment **boxed**: variation from RefSeq

ERBB2 wt ¹ Amino Acid Sequence							
1	MELAAALCRWG	LLLALLPPGA	ASTQVCTGTD	MKLRLPASPE	THLDMLRHLY	QGCQVQGNL	60
61	ELTYLPTNAS	LSFLQDIQEV	QGYVLIHQ	VRQVPLQRLR	IVRGTQLFED	NYALAVLDNG	120
121	DPLNNTTPTV	GASPGGLREL	QLRSLTEILK	GGVLIQRNPQ	LCYQDTILWK	DIFHKNNQLA	180
181	LTLIDTNRSR	ACHPCSPMCK	GSRCWGESSE	DCQSLTRTVC	AGGCARCKGP	LPTDCCHEQC	240
241	AAGCTGPKHS	DCLACLHFNH	SGICELHCPA	LVTYNTDTFE	SMPNPEGRYT	FGASCVTACP	300
301	YNYLSTDVGS	CTLVCPHNLQ	EVTAEADGTR	CEKCSKPCAR	VCYGLGMEHL	REVRVTSAN	360
361	IQEFAGCKKI	FGSLAFLPES	FDGDPASNTA	PLQPEQLQVF	ETLEEITGYL	YISAWPDSL	420
421	DLSVFQNLQV	IRGRILHNGA	YSLTLQGLGI	SWLGLRSLRE	LGSGLALIHH	NTHLCFVHTV	480
481	PWDQLFRNPH	QALLHTANRP	EDECVGEGLA	CHQLCARGHC	WPGPPTQCVN	CSQFLRGQEC	540
541	VEECRVLQGL	PREYVNARHC	LPCHPECQPQ	NGSVTCFGPE	ADQCVACAHY	KDPPFCVARC	600
601	PSGVKPDLSY	MPIWKFPDEE	GACQPCPINC	THSCVDLDDK	GCPAEQRASP	LTSIISAVVG	660
661	ILLVVVLGVV	FGILIKRRQQ	KIRKYTMRRLL	LQETELVEPL	TPSGAMPNQA	QMRILKETEL	720
721	RKVKVLGSGA	FGTVYKGIWI	PDGENVKIPV	AIKVLRENTS	PKANKEILDE	AYVMAVGVSPI	780
781	YVSRLLGICL	TSTVQLVTQL	MPYGCLLDHV	RENRLGSLQ	DLLNWCMIQA	KGMSYLEDVR	840
841	LVHRDLAARN	VLKSPNHVK	ITDFGLARLL	DIDETEHAD	GGKVPIKWMA	LESILRRRFT	900
901	HQSDVWSYGV	TVWELMTFGA	KPYDGIPARE	IPDLLEKGER	LPQPPICTID	VYMIMVKCWM	960
961	IDSECRPRFR	ELVSEFSRMA	RDPQRFVVIQ	NEDLGPASPL	DSTFYRSLE	DDDMGDLVDA	1020
1021	EEYLVPQGGF	FCPDPAPGAG	GMVHHRHRS	STRSGGGDLT	LGLEPSEEEA	PRSPLAPSEG	1080
1081	AGSDVFDGDL	GMGAAGLQS	LPTHDPSPQL	RYSEDPTVPL	PSETDGYVAP	LTCSPQPEYV	1140
1141	NQPDVVRPQP	SPREGPLPAA	RPAGATLERP	KTLSPGKNGV	VKDVFVAFGGA	VENPEYLTPO	1200
1201	GGAAPQPHPP	PAFSPAFDNL	YYWDQDPPER	GAPPSTFKGT	PTAENPEYLG	LDVPV	1260

blue: ERBB2 sequence expressed in recombinant protein **Red**: YVMA insertion site

¹NCBI/Protein accession number NP_004439.2