

ProQinase™ EPHB4

EPH receptor B4

Recombinant Human Active Protein Kinase

HGNC Symbol: EPHB4

Synonyms: Tyro11, HTK

Product No.: 0178-0000-3

Lot: 007

Description: Human EPHB4, C-terminal fragment, amino acids L₅₆₃-Y₉₈₇ (as in [NCBI/Protein](#) entry NP_004435.2), N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: EPHB4 Lot 007, has been verified by mass spectrometry LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 76794 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: in vitro auto activation

Storage buffer: 50 mM TRIS-HCl pH 8.0, 100 mM NaCl, 5 mM DTT, 20 % glycerol

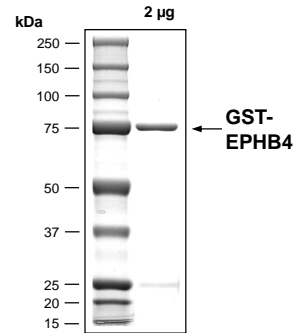
Storage temperature: -80°C

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!

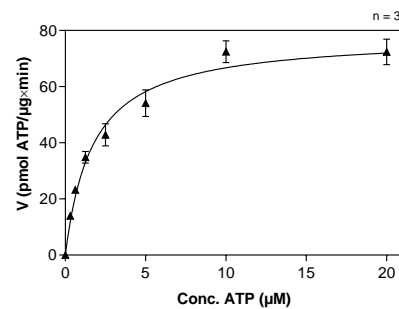
Protein concentration: 0.235 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:
Specific kinase activity (P_i transfer): 78 pmol/µg*min
ATP-K_M: 1.71 µM

EPHB4 Lot 007: Coomassie stain



EPHB4 Lot 007: 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(E/Y)_{4,1} 10 µg/ml
 - Kinase: 0.5 µg/ml

Assay technology:
Radiometric filter binding assay
MSFC membrane (96 well plate, Millipore)

Recombinant Proteins

Sequence information

GST-EPHB4 Recombinant Fusion Protein Amino Acid Sequence								
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLIERDEGDK	WRNKKFELGL	EFPNLPYYID	60	
61	GDVKLTQSM	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120	
121	DFLSKLP	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180	
181	KRIEAI	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHHG	RRRASVAAGI	240	
241	LVPRGSPGLD	GICSR	LRKQS	NGREAEYS	DK	HGQYLIGHGT	KVYIDPF	300
301	KEIDVSYVKI	EEVIGAGEFG	EVCRCRLKAP	GKKESCVAIK	TLKGGYTERQ	RREFLSEASI	360	
361	MGQFEHPNII	RLEGVVTNSM	PVMILTEFME	NGALDSFLRL	NDGQFTVIQL	VGMLRGIASG	420	
421	MRYLAEMS	YV	HRDLAARNIL	VNSNLVCKVS	DFGLSRFLEE	NSSDPTYTSS	LGGKIP	480
481	APEAIAFRKF	TSASDAWSYG	IVMWEVMSFG	ERPYWDMSNQ	DVINAIEQDY	RLPPPPDCPT	540	
541	SLHQMLDCW	QKDRNARPRF	PQVVSALDKM	IRNPASLKIV	ARENGGASHP	LLDQRQPHYS	600	
601	AFGSVGEWLR	AIKMGRYEES	FAAAGFGSFE	LVSQISAEDL	LRIGVTLAGH	QKKILASVQH	660	
661	MKSQAKPGTP	GGTGGPAPQY					720	

1-218: GST Red: HIS6-tag Pink: Thrombin cleavage site blue: EPHB4 fragment

EPHB4 wt ¹ Amino Acid Sequence								
1	MELRVLLCWA	SLAAALET	L	LNTKLETADL	KWVTFPQVDG	QWEELSGLDE	EQHSVRTYEV	60
61	CEVQRAPGQA	HWLRTGWVPR	RGAVH	VYATL	RFTMLECLSL	PRAGRSCKET	FTVFYYESDA	120
121	DTATALTPAW	MENPYIKVDT	VAAEHLTRKR	PGAEATGKVN	VKTLRLG	PLS	KAGFYLA	180
181	QGACMALLSL	HLFYKKCAQL	TVNLT	RFPE	T	VPREL	VVPA	240
241	EDGQWAEQPV	TGCSCAPGFE	AAEGNTKCRA	CAQGT	FKPLS	GEGSCQPCPA	NSHSNTIGSA	300
301	VCQCRVGYFR	ARTDPRGAPC	TTPPSAPRSV	VSRLNGSSLH	LEWSAPLES	G	REDLTYALR	360
361	CRECRPGGSC	APCGDLTFD	PGPRDLVEPW	VVVRGLR	PDF	TYTFEVTALN	GVSSLATGPV	420
421	PFEPVNVTTD	REVPPAVSDI	RVTRSSPSSL	SLAWAVPRAP	SGAWLDYEVK	YHEKGAEGPS		480
481	SVRFLKTSEN	RAELRGLKRG	ASYLVQVRAR	SEAGYGPF	GQ	EHHSQTQLDE	SEGWREQLAL	540
541	IAGTAVVGVV	LVLVVIVVAV	LCLRKQSN	GR	EAEYSDKHGQ	YLIGHG	TKVY	600
601	EAVREFAKEI	DVS	YVKIEEV	IGAGEFGEVC	RGRLKAPGK	ESCVAIK	TLK	660
661	FLSEASIMGQ	FEHPNIIRLE	GVVTNSMPVM	ILTEFMENGA	LDSFLRLNDG	QFTVIQLVGM		720
721	LRGIASGMRY	LAEMSYVHRD	LAARNILVNS	NLVCKVSDFG	LSRFLEENSS	DPTYTSSLGG		780
781	KIPIRWTAPE	AIAFRKFTSA	SDAWSYGIVM	WEVMSFGERP	YWDMSNQDVI	NAIEQDYRLP		840
841	PPPDCPTSLH	QLMLDCWQKD	RNARPRFPQV	VSALDKMIRN	PASLKIVARE	NGGASHPLLD		900
901	QRQPHYSAFG	SVGEWLRAIK	MGRYEESFAA	AGFGS	FELVS	QISAEDLLRI	GVTLAGHQK	960
961	ILASVQHMK	S	QAKPGTPGGT	GGPAPQY				1020

blue: EPHB4 sequence expressed in recombinant protein

¹NCBI/Protein accession number NP_004435.0