

ProQinase™ EPHB1

EPH receptor B1

Recombinant Human Active Protein Kinase

HGNC Symbol: EPHB1

Synonyms: EPHT2, Hek6

Product No.: 0317-0000-1

Lot: 001

Description: Human Kinase, C-terminal fragment, amino acids R₅₆₅-A₉₈₄ (as in [NCBI/Protein](#) entry NP_004432.1), N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: EPHB1 Lot 001, has been verified by mass spectrometry LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 76906 Da

Expression host: Sf9 insect 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

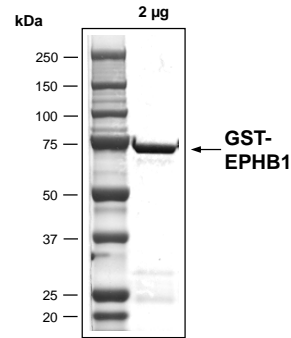
Storage temperature: -80°C

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!

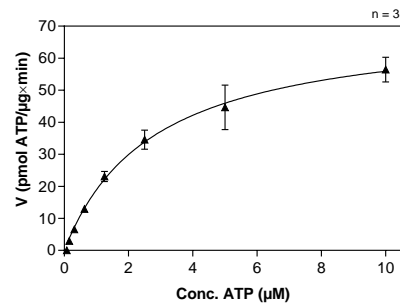
Protein concentration: 0.500 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:
Specific kinase activity (P_i transfer): 72 pmol/µg*min
ATP-K_M: 2.8 µM

EPHB1 Lot 001: Coomassie stain



EPHB1 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(E/Y)4:1 20 µg/ml
 - Kinase: 1 µg/ml

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

Recombinant Proteins

Sequence information

GST-EPHB1 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLIERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHGG	RRRASVAAGI	240
241	LVPRGSPGLD	GICSRRKRAY	SKEAVYSDKL	QHYSTGRGSP	GMKIYIDPFT	YEDPNEAVRE	300
301	FAKEIDVSFV	KIEEVIGAGE	FGEVYKGRLL	LPGKREIYVA	IKTLKAGYSE	KQRRDFLSEA	360
361	SIMGQFDHPN	IIRLEGVVTK	SRPVMIIITEF	MENGALDSFL	RQNDGQFTVI	QLVGMLRGIA	420
421	AGMKYLAEMN	YVHRDLAARN	ILVNSNLVCK	VSDFGLSRYL	QDDTSDPTYT	SSLGGKIPVR	480
481	WTAPEAIAYR	KFTSASDVWS	YGIVMWEVMS	FGERPYPWMS	NQDVINAIEQ	DYRLPPPMDC	540
541	PAALHQLMLD	CWQKDRNSRP	RFAEIVNTLD	KMIRNPASLK	TVATITAVPS	QPLDRSIPD	600
601	FTAFTTVDW	LSAIKMQYR	DSFLTAGFTS	LQLVTQMTSE	DLRIGITLA	GHQKKILNSI	660
661	HSMRVQISQS	PTAMA					720

1-218: GST Red: HIS6-tag Pink: Thrombin cleavage site blue: EPHB1 fragment

EPHB1 wt ¹ Amino Acid Sequence							
1	MALDYLLLLL	LASAVAAMEE	TLMDTRTATA	ELGWTANPAS	GWEEVSGYDE	NLNTIRTYQV	60
61	CNVFEPNQNN	WLLTTFINRR	GAHRIYTEMR	FTVRDCSSLP	NVPGSCKETF	NLYYYETDSV	120
121	IATKKSFAWS	EAPYLKVDTI	AADESFSQVD	FGGRLMKVNT	EVRSFGPLTR	NGFYLAFOQY	180
181	GACMSLLSVR	VFFKCCPSIV	QNFVAVPETM	TGAESTSLVI	ARGTCIPNAE	EVDVPIKLYC	240
241	NGDGEMVPI	GRCTCKPGYE	PENSIVACKAC	PAGTFKASQE	AEGCSHCPSN	SRSPAEASPI	300
301	CTCRTGYYRA	DFDPPEVACT	SVPSGPRNVI	SIVNETSIIIL	EWHPPRETGG	RDDVTYNIIC	360
361	KKCRADRRSC	SRCDDNVEFV	PRQLGLTECR	VSISLWAHT	PYTFDIQAIN	GVSSKSPFPF	420
421	QHVSVNITTN	QAAPSTVPI	HQVSATMRSI	TLSWPQPEQP	NGIILDYEIR	YYEKEHNEFN	480
481	SSMARSQNT	ARIDGLRPGM	VYVVQVRART	VAGYKFGSGK	MCFQTLTDDD	YKSELREQLP	540
541	LIAGSAAAGV	VFVSVLVAIS	IVCSRKRAYS	KEAVYSDKLQ	HYSTGRGSPG	MKIYIDPFTY	600
601	EDPNEAVREF	AKEIDVSFVK	IEEVIGAGEF	GEVYKGRLL	PGKREIYVAI	KTLKAGYSEK	660
661	QRRDFLSEAS	IMGQFDHPNI	IRLEGVVTKS	RPVMIIITEFM	ENGALDSFLR	QNDGQFTVIQ	720
721	LVGMLRGIAA	GMKYLAEMNY	VHRDLAARNI	LVNSNLVCKV	SDFGLSRYLQ	DDTSDPTYTS	780
781	SLGGKIPVRW	TAPEAIAYRK	FTSASDVWSY	GIVMWEVMSF	GERPYPWMSN	QDVINAIEQD	840
841	YRLPPPMDCP	AALHQLMLDC	WQKDRNSRPR	FAEIVNTLDK	MIRNPASLKT	VATITAVPSQ	900
901	PLDRSIPDF	TAFTTVDW	SAIKMQYRD	SFLTAGFTSL	QLVTQMTSED	LLRIGITLAG	960
961	HQKKILNSIH	SMRVQISQSP	TAMA				1020

blue: EPHB1 sequence expressed in recombinant protein

¹NCBI/Protein accession number NP_004432.1