

ProQinase™ EPHA1

EPH receptor A1

Recombinant Human Active Protein Kinase

HGNC Symbol: EPHA1

Synonyms: EPHT, EPHT1, EPH

Product No.: 0215-0000-1

Lot: 002

Description: Human EPHA1, C-terminal fragment, amino acids R₅₆₉-D₉₇₆ (as in [NCBI/Protein](#) entry NP_005223.4), N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: EPHA1 Lot 002, has been verified by mass spectrometry LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 79631 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: 0.071 µg/µl

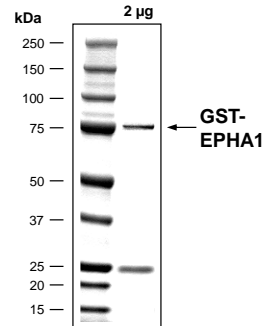
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

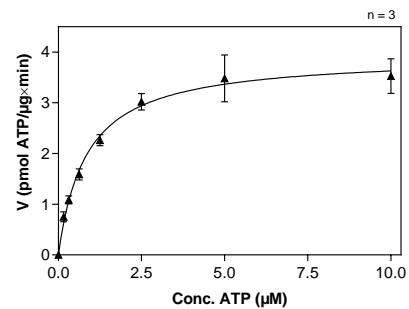
Specific kinase activity (P_i transfer): 3.9 pmol/µg*min

ATP-K_M: 0.8 µM

EPHA1 Lot 002:
Coomassie stain



EPHA1 Lot 002:
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} 40 µg/ml
 - Kinase: 1 µg/ml

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

Recombinant Proteins

Sequence information

GST-EPHA1 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLIERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSM	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLP EML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMG HHHHHH G	RRRASVAAGI	240
241	LVPRGS PGLD	GICSRNSPLC	MRSRRAQRQR	QQRQRDRATD	VDREDKLWLK	PYVDLQAYED	300
301	PAQGALDFTR	ELDPAWLMVD	TVIGEGEFGE	VYRGTLLRPS	QDCKTVAIKT	LKDTSPGGQW	360
361	WNFLREATIM	GQFSHPHILH	LEGVVTKRKP	IMIITEFMEN	GALDAFLRER	EDQLVPGQLV	420
421	AMLQGIASGM	NYLSNHNYVH	RDLAARNILV	NQNLCKKVS	FGLTRLLDDF	DGTYETQGGK	480
481	IPIRWTAPEA	IAHRIFTTAS	DVWSFGIVMW	EVLSFGDKPY	GEMSNQEVMS	SIEDGYRLPP	540
541	PVDCPAPLYE	LMKNCWAYDR	ARRPHFQKLQ	AHLEQLLANP	HSLRTIANFD	PRVTLRLPSL	600
601	SGSDGIPYRT	VSEWLESIRM	KRYILHFHSA	GLDTMECVLE	LTAEDLTQMG	ITLPGHQKRI	660
661	LCSIQGFKDK	GEFRPPWELA	AACRVPPGDL	YRLC			720

1-218: GST **Red**: HIS6-tag **Pink**: Thrombin cleavage site **blue**: EPHA1 fragment **boxed**: variation from RefSeq

EPHA1 wt ¹ Amino Acid Sequence							
1	MERRWPLGLG	LVLLLCAPLP	PGARAKEVTL	MDTSKAQGEL	GWLLDPPKDG	WSEQQIILNG	60
61	TPLYMYQDCP	MQGRRTDHW	LRSNWIYRGE	EASRVHVELQ	FTVRDCKSFP	GGAGPLGCKE	120
121	TFNLLYMESD	QDVGIQLRRP	LFQKVTTVAA	DQSFTIRDLV	SGSVKLNVER	CSLGRLTRRG	180
181	LYLAFHNPGA	CVALVSVRVF	YQRCPETLNG	LAQFPDTLPG	PAGLVEVAGT	CLPHARASPR	240
241	PSGAPRMHCS	PDGEWLVPVG	RCHCEPGYEE	GGSGEACVAC	PSGSYRMDMD	TPHCLTCPQQ	300
301	STAESEGATI	CTCESGHYRA	PGEQPQVACT	GPPSAPRNLS	FSASGTQLSL	RWEPPADTGG	360
361	RQDVRYSVRC	SQCQGTADG	GPCQPCGVGV	HFSPGARGLT	TPAVHVNGLE	PYANYTFNVE	420
421	AQNGVSGLGS	SGHASTSVSI	SMGHAESLSG	LSLRLVKKEP	RQLELTWAGS	RPRSPGANLT	480
481	YELHVLNQDE	ERYQMVLEPR	VLLTELQPD	TYIVRVRLMT	PLGPGPFSPD	HEFRTSPPVS	540
541	RGLTGGEIVA	VIFGLLLGAA	LLLGILVFRS	RRARQRQRQR	QRDRATDVR	EDKLWLKPYV	600
601	DLQAYEDPAQ	GALDFTRELD	PAWLMVDTVI	GEGEFGEVYR	GTLRLPSQDC	KTVAIKTLKD	660
661	TSPGGQWWNF	LREATIMGQF	SHPHILHLEG	VVTKRKPIMI	ITEFMENGAL	DAFLREREDQ	720
721	LVPQQLVAML	QGIASGMNYL	SNHNYVHRDL	AARNILVNQN	LCCKVSDFGL	TRLLDDFDGT	780
781	YETQGGKIPI	RWTAPEAIAH	RIFTTASDVW	SFGIVMWEVL	SFGDKPYGEM	SNQEVMSKIE	840
841	DGYRLPPPVD	CPAPLYELMK	NCWAYDRARR	PHFQKLOAHL	EQLLANPHSL	RTIANFDPRM	900
901	TLRLPSLSGS	DGIPYRTVSE	WLESIRMKRY	ILHFHSAGLD	TMECVLELTA	EDLTQMGITL	960
961	PGHQKRI LCS	IQGFKD					1020

blue: EPHA1 sequence expressed in recombinant protein **Red**: variant in recombinant protein

¹NCBI/Protein accession number NP_005223.4
M900V: SNP variation see NCBI/dbSNP ID: rs6967117