

ProQinase™ EPHA7

EPH receptor A7

Recombinant Human Active Protein Kinase

HGNC Symbol: EPHA7

Synonyms: EHK3, HEK11

Product No.: 0741-0000-1

Lot: 001

Description: Human EPHA7, C-terminal fragment, amino acids G₅₇₉-V₉₉₈ (as in [NCBI/Protein](#) entry NP_004431.1), activated, N-terminal GST-HIS₆ fusion protein with a Thrombin and a 3C cleavage site, expressed in Sf9 insect cells

Product identity: EPHA7, Lot 001, was confirmed as EPHA7 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 78,443 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: in vitro auto activation

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: 0.317 µg/µl

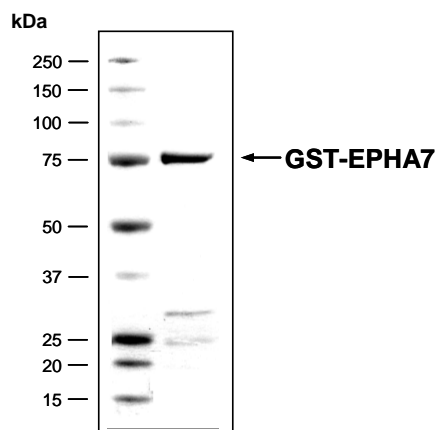
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

Specific kinase activity (P_i transfer): 21 pmol/µg × min

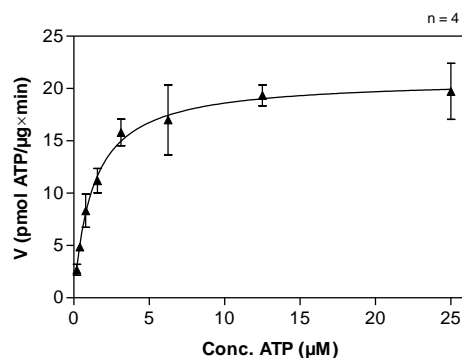
ATP-K_M: 1.2 µM

EPHA7 Lot 001: Coomassie stain



2.0 µg GST-EPHA7

EPHA7 Lot 001: 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}, 10 µg/ml
 - Kinase: 0.8 µg/ml
- Filter binding assay
 - MSFC membrane (Millipore)

Additional assay technology:

EPHA7 Lot 001 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

ProQinase™ EPHA7

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GST-EPHA7 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	KRIEAIPIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	RRRASVAAGI	240
241	LVPRGSPGLD	GIYARDSLEV	LFQGPLAMGA	PGRRHCGYSK	ADQEGDEELY	FHFKFPGTKT	300
301	YIDPETYEDP	NRAVHQFAKE	LDASCIKIER	VIGAGEFGEV	CSGRLKLPK	RDVAVAIKTL	360
361	KVGYTEKQRR	DFLCEASIMG	QFDHPNVVHL	EGVVTRGKPV	MIVIEFMENG	ALDAFLRKHD	420
421	GQFTVIQLVG	MLRGIAAGMR	YLADMGYVHR	DLAARNILVN	SNLVCKVSDF	GLSRVIEDDP	480
481	EAVYTTTGGK	IPVRWTAPEA	IQYRKFTSAS	DVWSYGIVMW	EVMSYGERPY	WDMSNQDVIK	540
541	AIEEGYRLPA	PMDCPAGLHQ	LMLDCWQKER	AERPKEQIV	GILDKMIRNP	NSLKTPLGTC	600
600	SRPISPLLDQ	NTPDFTTFC	VGEWLQAIKM	ERYKDNFTAA	GYSLSLEVAR	MTIEDVMSLG	660
661	ITLVGHQKKI	MSSIQTMRQ	MLHLHGTGIQ	V			720

1-218: GST Red: HIS6-tag Pink: Thrombin cleavage site Green: 3C cleavage site blue: EPHA7 fragment

EPHA7 wt ¹ Amino Acid Sequence							
1	MVFQTRYPSW	IILCYIWLRL	FAHTGEAQAA	KEVLLLLDSKA	QQTELEWISS	PPNGWEEISG	60
61	LDENYTPIRT	YQVCQVMEPN	QNNWLRTNWI	SKGNAQRIFV	ELKFTLRDCN	SLPGVLGTCK	120
121	ETFNLYYYET	DYDTGRNIRE	NLYVKIDTIA	ADESFTQGD	GERKMKLNTE	VREIGPLSKK	180
181	GFYLAQDVG	ACIALVSVKV	YYKCCWSIIE	NLAIFPDTVT	GSEFSSLVEV	RGTCVSSAEE	240
241	EAENAPRMHC	SAEGEWLVPI	GKCICKAGYQ	QKGDTCPCG	RGFYKSSSQD	LQCSRCPTH	300
301	FSDKEGSSRC	ECEDGYRAP	SDPPYVACTR	PPSAPQNLIF	NINQTTVSLE	WSPPADNGGR	360
361	NDVTYRILCK	RCSWEQGEV	PCGSNIGYMP	QQTGLEDNV	TVMDLLAHAN	YTFEVEAVNG	420
421	VSDLRSRQRL	FAAVSITGQ	AAPSQVSGVM	KERVLRQSV	LSWQEPHPN	GVITEYEIKY	480
481	YEKQQRERTY	STVTKKSTSA	SINNLKPGTV	YVFQIRAF	AGYGNYSRPL	DVATLEEATG	540
541	KMFEATAVSS	EQNPVIIIAV	VAVAGTIILV	FMVFGFIIIG	RHCGYSKADQ	EGDEELYFHF	600
600	KFPGKTYID	PETYEDPNRA	VHQFAKELDA	SCIKIERVIG	AGEFGEVCSG	RLKLPGRD	660
661	AVAIKTLKVG	YTEKQRDFL	CEASIMQFD	HPNVHLEGV	VTRGKPMIV	IEFMENGALD	720
721	AFLRKHDGQF	TVIQLVGMLR	GIAAGMRYLA	DMGYVHRDLA	ARNILVNSNL	VCKVSDFGLS	780
781	RVIEDDPEAV	YTTTGGKIPV	RWTAPEAIQY	RKFTSASDVW	SYGIVMWEVM	SYGERPYWDM	840
841	SNQDVIKAI	EGYRLPAPMD	CPAGLHQLML	DCWQKERAER	PKFEQIVGIL	DKMIRNPNSL	900
901	KTPLGTCSR	ISPLLDQNT	DFTTFCVSGE	WLQAIKMERY	KDNFTAAGYN	SLESVARMTI	960
961	EDVMSLGITL	VGHQKKIMSS	IQTMRAQLH	LHGTGIQV			1020

blue: EPHA7 sequence expressed in recombinant protein

¹NCBI/Protein accession number NP_004431.1