

ProQinase™ EPHA5

EPH receptor A5

Recombinant Human Active Protein Kinase

HGNC Symbol: EPHA5

Synonyms: CEK7, EH1, HEK7, TYRO4

Product No.: 0739-0000-1

Lot: 001

Description: Human EPHA5, C-terminal fragment, amino acids S₅₉₅-L₁₀₃₇ (as in [NCBI/Protein](#) entry NP_004430.2), N-terminal GST-HIS₆ fusion protein with a Thrombin and 3C cleavage site, expressed in Sf9 insect cells

Product identity: EPHA5 Lot 001, has been verified by mass spectrometry LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 80683 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: 0.167 µg/µl

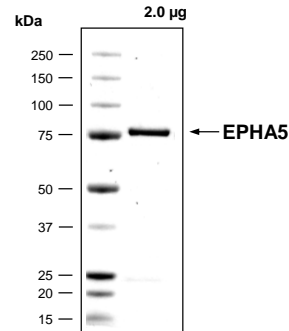
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

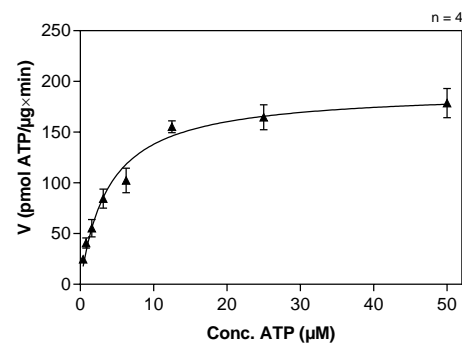
Specific kinase activity (P_i transfer): 191 pmol/µg*min

ATP-K_M: 3.9 µM

EPHA5 Lot 001: Coomassie stain



EPHA5 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} 10 µg/ml
 - Kinase: 0.4 µg/ml

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

Recombinant Proteins

Sequence information

GST-EPHA5 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSM	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLP	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAI	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHGG	RRRASVAAGI	240
241	LVPRGSPGLD	GIYARDSLEV	LFQGPLAMGA	PSGSCCECGC	GRASSLCAVA	HPSLIWRCGY	300
301	SKAKQDPEEE	KMHFNHGHK	LPGVRTYIDP	HTYEDPNQAV	HEFAKEIEAS	CITIERVIGA	360
361	GEFGEVCSGR	LKLPKGREL	VAIKTLKVG	TEKQRDFLG	EASIMGQFDH	PNIIHLEGVV	420
421	TKSKPVMIVT	EYMENGSLD	FLKKNQGQFT	VIQLVGLRG	ISAGMKYLS	MGYVHRDLAA	480
481	RNILINSNLV	CKVSDFGLSR	VLEDDPEAA	TTRGGKIP	WTAPEAIAFR	KFTSASDVWS	540
541	YGIVMWEVVS	YGERPYWEM	NQDVIKAVEE	GYRLPSPMDC	PAALYQLMLD	CWQKERNRSP	600
600	KFDEIVNMLD	KLIRNPSSLK	TLVNASC	NLLAEHSPLG	SGAYRSVGEW	LEAIKMGRYT	660
661	EIFMENGYSS	MDAVAQV	DLRRLGV	TLVGHQKIMNSL	QEMKVQLVNG	MVPL	720

1-218: GST Red: HIS6-tag Pink: Thrombin cleavage site Green: 3C cleavage site blue: EPHA5 fragment

EPHA5 wt ¹ Amino Acid Sequence							
1	MRGSGPRGAG	HRRPPSGGGD	TPITPASLAG	CYSAPRRAPL	WTCLLLCAAL	RTLLASPSNE	60
61	VNLLDSRTVM	GDLGWIAFPK	NGWEEIGEVD	ENYAPIHTYQ	VCKVMEQNQN	NWLLTSWISN	120
121	EGASRIFIEL	KFTLRDCNSL	PGGLGTCKET	FNMYFESDD	QNGRNIKENQ	YIKIDTIAAD	180
181	ESFTELDLGD	RVMKLNTEVR	DVGPLSKKGF	YLAFQDVGAC	IALVSVRVYY	KECPSVVRHL	240
241	AVFPDTITGA	DSSQLLEVSG	SCVNHSVTDE	PPKMHC	SAEG EWLVP	IGKCM CKAGY	EEKNG 300
301	TCQVCRPGFF	KASPHIQSCG	KCPPHSYTHE	EASTSCVCEK	DYFRRES	DPP TMACTR	PPSA 360
361	PRNAISNVNE	TSVFLEWIPP	ADTGGRKDVS	YYIACKK	CNS HAGV	CEECG HVRYL	PRQSG 420
421	LKNTSVM	MVD LLAHT	NYTFE IEAV	NGVSDL SPGAR	QYVSV NVT	TNQAAPS PVT	NVKKGI 480
481	AKNSISLSWQ	EPDRPNGIIL	EYEIKYFEKD	QETS	YTIKS KETT	TITAEGL KPAS	VYVFQI 540
541	RARTAAGYGV	FSRRFEFETT	PVFAASSDQS	QIPVIAVSVT	VG	VILLAVVI GVLL	SGSCCE 600
600	CGCGRASSLC	AVAHPSLIWR	CGYSKAKQDP	EEEMHFNHNG	HIKLP	GVRTY IDP	HTYEDPN 660
661	QAVHEFAKEI	EASCITIERV	IGAGEFGEVC	SGRLKLP	GKR ELP	VAIKTLK VGY	TEKQRRD 720
721	FLGEASIMGQ	FDHPNIIHLE	GVVTKSKPVM	IVTEYMENGS	LDTFL	KKNDG QFT	VIQLVGM 780
781	LRGISAGMKY	LSDMGYVHRD	LAARNILINS	NLVCKVSDFG	LSRVLEDDPE	AA	YTRGGKI 840
841	PIRWTAPEAI	AFRKF	TASD VWSY	GIVMWE VVS	YGERPYW EMT	NQVIKA VEE	GYRLPSP 900
901	MDCPAALYQL	MLDCWQKERN	SRPKFDEIVN	MLDKLIRNPS	SLKTLVNASC	RVS	NLLAEHS 960
961	PLGSGAYRSV	GEWLEAIKMG	RYTEIFMENG	YSSMDAVAQV	TLEDLRLRGV	TLVGHQKIM	1020
1021	NSLQEMKVQL	VNGMVPL					1080

blue: EPHA5 sequence expressed in recombinant protein

¹[NCBI/Protein](https://www.ncbi.nlm.nih.gov/protein/NP_004430.2) accession number NP_004430.2