

BMPR1B

bone morphogenetic protein receptor type 1B

Recombinant Human Active Protein Kinase

HGNC Symbol: BMPR1B

Synonyms: ALK6, CDw293

Product No.: 1667-0000-1

Lot: 001

Description: Human BMPR1B, C-terminal fragment, amino acids Y₁₄₉-L₅₀₂ (as in [NCBI/Protein](#) entry NP_001194.1), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: BMPR1B Lot 001, was confirmed as BMPR1B by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 63,387 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: This kinase was not activated by special procedures

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

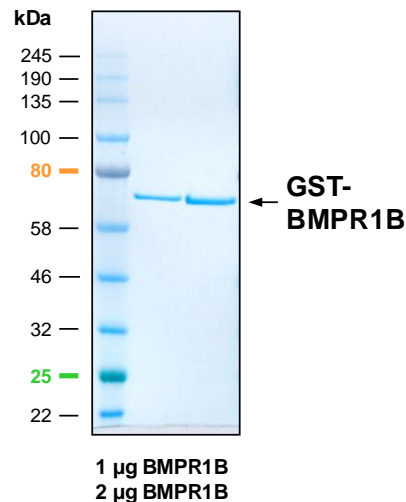
Biochemical Parameters:

Specific kinase activity (P_i transfer): 13 pmol/µg × min
ATP-K_M: 0.2 µM

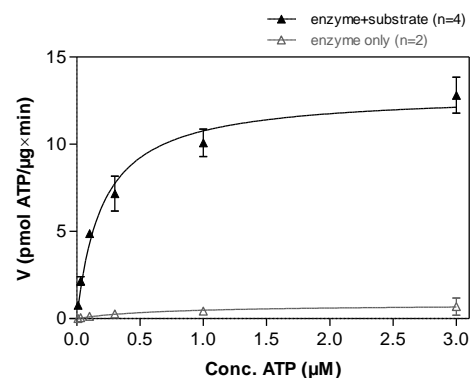
Additional assay technology:

BMPR1B Lot 001 was also successfully tested by ProQinase 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

BMPR1B Lot 001: Coomassie stain



BMPR1B 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: Casein 40 µg/ml
 - Kinase: 0.2 µg/ml
- Filter binding assay
MSFC membrane (Millipore)

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| GST-BMPR1B Recombinant Fusion Protein Amino Acid Sequence | | | | | | | |
|---|-------------|------------|-------------|------------|------------|------------|-----|
| 1 | MSPILGYWKI | KGLVQPTRL | LEYLEEKYEE | HLYERDEGDK | WRNKKFELGL | EFPNLPYYID | 60 |
| 61 | GDKVLTQSMA | IIRYIADKHN | MLGGCPKERA | EISMLEGAVL | DIRYGVSRIA | YSKDFETLKV | 120 |
| 121 | DFLSKLPPEML | KMFKDRLCHK | TYLNGDHVTH | PDFMLYDALD | VVLYMDPMCL | DAFPKLVCFK | 180 |
| 181 | KRIEAIPOID | KYLKSSKYIA | WPLQGWQATF | GGGDHPPKSD | PMGHHHHHG | RDSLEVLFGG | 240 |
| 241 | PKRQETPR | YSIGLEQDET | YIPPGESLRD | LIEQSQSSGS | GSGLPLLQVQ | TIAKQIQMVK | 300 |
| 301 | QIGKGRYGEV | WMGKWRGEKV | AVKVFVFTTEE | ASWFRETEIY | QTVLMRHENI | LGFAADIKG | 360 |
| 361 | TGSWTQLYLI | TDYHENGSLY | DYLNKSTTLDA | KSMLKLAYSS | VSGLCHLHTE | IFSTQKPAI | 420 |
| 421 | AHRDLKSKNI | LVKKNGTCCI | ADLGLAVKFI | SDTNEVDIPP | NTRVGTKRYM | PPEVLDESIN | 480 |
| 481 | RNHFSQSYIMA | DMYSFGLILW | EVARRCVSGG | IVEEYQLPYH | DLVPSDPSYE | DMREIVCIKK | 540 |
| 541 | LRPSFPNRWS | SDECLRQMGK | LMTECWAHNP | ASRLTALRVK | KTLAKMSESQ | DIKL | 600 |

1-218: GST Red: HIS6-tag Green: 3C cleavage site blue: BMPR1B fragment

| BMPR1B wt ¹ Amino Acid Sequence | | | | | | | |
|--|------------|------------|------------|------------|------------|------------|-----|
| 1 | MLRSAGKLN | VGTKKEDGES | TAPTPRPKVL | RCKCHHHCPE | DSVNNICSTD | GYCFTMIEED | 60 |
| 61 | DSGLPVVTS | CLGLEGSDFQ | CRDTPIPHQR | RSIECCTERN | ECNKDLHPTL | PPLKNRDFVD | 120 |
| 121 | GPIHHRALLI | SVTVCSELLV | LIILFCYFRY | KRQETRPRYS | IGLEQDETYI | PPGESLRDLI | 180 |
| 181 | EQSQSSGSGS | GLPLLQVQTI | AKQIQMVKQI | GKGRYGEVWM | GKWRGEKVAV | KVFFVTEEAS | 240 |
| 241 | WFRETEIYQT | VLMRHENILG | FIAADIKGTG | SWTQLYLITD | YHENGSLYDY | LKSTTLDAKS | 300 |
| 301 | MLKLAYSSVS | GLCHLHTEIF | STQKPAIAH | RDLKSKNILV | KKNGTCCIAD | LGLAVKFISD | 360 |
| 361 | TNEVDIPPNT | RVGTRKYMPP | EVLDESINRN | HFQSYIMADM | YSFGLILWEV | ARRCVSGGIV | 420 |
| 421 | EEYQLPYHDL | VPSDPSYEDM | REIVCIKKLR | PSFPNRWSSD | ECLRQMGKLM | TECWAHNPAS | 480 |
| 481 | RLTALRVKKT | LAKMSESQDI | KL | | | | 540 |

blue: BMPR1B sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_001194.1

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