

Datasheet for ABIN7553880
PTK2B Protein (AA 1-1009) (His tag)



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Overview

| | |
|-------------------------------|--|
| Quantity: | 1 mg |
| Target: | PTK2B |
| Protein Characteristics: | AA 1-1009 |
| Origin: | Human |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This PTK2B protein is labelled with His tag. |
| Application: | Western Blotting (WB), SDS-PAGE (SDS) |

Product Details

| | |
|-----------|--|
| Purpose: | Custom-made recombinat PTK2B Protein expressed in mammalien cells. |
| Sequence: | MSGVSEPLSR VKLGLRRPE GPAEPMVVVP VDVEKEDVRI LKVCFYNSNF NPGKNFKLVK CTVQTEIREI ITSILLSGRI GPNIRLAECY GLRLKHKMSD EIHWLHPQMT VGEVQDKYEC LHVEAEWRYD LQIRYLPEDF MESLKEDRTT LLYFYQQLRN DYMQRYSKSV SEGMAQLGCG LELRRFFKDM PHNALDKKSN FELLEKEVGL DLFFPKQMQE NLKPKQFRKM IQQTFQYAS LREEECVMKF FNTLAGFANI DQETYRCELI QGWNITVDLV IGPKGIRQLT SQDAKPTCLA EFKQIRSIRC LPLEEGQAVL QLGIEGAPQA LSIKTSSLAE AENMADLIDG YCRLQGEHQG SLIIHPRKDG EKRNSLPQIP MLNLEARRSH LSESCSIESD IYAEIPDETL RRPGGPQYGI AREDVVLNRI LGEGFFGEVY EGVYTNHKGE KINVAVKTCCK KDCTLDNKEK FMSEAVIMKN LDHPHIVKLI GIIEEPTWI IMELYPYGEL GHYLERNKNS LKVLTLVLYS LQICKAMAYL ESINCVHRDI AVRNILVASP ECVKLGDFGL SRYIEDEDYY KASVTRLPIK WMSPEINFR RFTTASDVWM FAVCMWEILS FGKQPFWFLE NKDVIGVLEK GDRLPKPDLC PPVLYTLMTR |

Product Details

CWDYDPSDRP RFTELVCSLS DVYQMEKDIA MEQERNARYR TPKILEPTAF QEPPPKPSRP
KYRPPPQTNL LAPKLQFQVP EGLCASSPTL TSPMEYPSPV NSLHTPPLHR HNVFKRHSMR
EEDFIQPSSR EEAQQLWEAE KVKMRQILDK QKQKMVEDYQ WLRQEEKSLD PMVYMNDKSP
LTPEKEVGYL EFTGPPQKPP RLGAQSIQPT ANLDRTDDL VYLNVMELVRA VLELKNELCQ
LPPEGYVVV KNVGLTLRKL IGSVDDLLPS LPSSSRTEIE GTQKLLNKDL AELINKMRLA
QQNAVTSLS ECKRQMLTAS HTLAVDAKNL LDAVDQAKVL ANLAHPPAE **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**

Characteristics:

Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

Grade:

custom-made

Target Details

Target:

PTK2B

Alternative Name:

PTK2B ([PTK2B Products](#))

Background:

Protein-tyrosine kinase 2-beta (EC 2.7.10.2) (Calcium-dependent tyrosine kinase) (CADTK) (Calcium-regulated non-receptor proline-rich tyrosine kinase) (Cell adhesion kinase beta) (CAK-beta) (CAKB) (Focal adhesion kinase 2) (FADK 2) (Proline-rich tyrosine kinase 2) (Related adhesion focal tyrosine kinase) (RAFTK),FUNCTION: Non-receptor protein-tyrosine kinase that

regulates reorganization of the actin cytoskeleton, cell polarization, cell migration, adhesion, spreading and bone remodeling. Plays a role in the regulation of the humoral immune response, and is required for normal levels of marginal B-cells in the spleen and normal migration of splenic B-cells. Required for normal macrophage polarization and migration towards sites of inflammation. Regulates cytoskeleton rearrangement and cell spreading in T-cells, and contributes to the regulation of T-cell responses. Promotes osteoclastic bone resorption, this requires both PTK2B/PYK2 and SRC. May inhibit differentiation and activity of osteoprogenitor cells. Functions in signaling downstream of integrin and collagen receptors, immune receptors, G-protein coupled receptors (GPCR), cytokine, chemokine and growth factor receptors, and mediates responses to cellular stress. Forms multisubunit signaling complexes with SRC and SRC family members upon activation, this leads to the phosphorylation of additional tyrosine residues, creating binding sites for scaffold proteins, effectors and substrates. Regulates numerous signaling pathways. Promotes activation of phosphatidylinositol 3-kinase and of the AKT1 signaling cascade. Promotes activation of NOS3. Regulates production of the cellular messenger cGMP. Promotes activation of the MAP kinase signaling cascade, including activation of MAPK1/ERK2, MAPK3/ERK1 and MAPK8/JNK1. Promotes activation of Rho family GTPases, such as RHOA and RAC1. Recruits the ubiquitin ligase MDM2 to P53/TP53 in the nucleus, and thereby regulates P53/TP53 activity, P53/TP53 ubiquitination and proteasomal degradation. Acts as a scaffold, binding to both PDPK1 and SRC, thereby allowing SRC to phosphorylate PDPK1 at 'Tyr-9', 'Tyr-373', and 'Tyr-376'. Promotes phosphorylation of NMDA receptors by SRC family members, and thereby contributes to the regulation of NMDA receptor ion channel activity and intracellular Ca(2+) levels. May also regulate potassium ion transport by phosphorylation of potassium channel subunits. Phosphorylates SRC, this increases SRC kinase activity. Phosphorylates ASAP1, NPHP1, KCNA2 and SHC1. Promotes phosphorylation of ASAP2, RHOU and PXN, this requires both SRC and PTK2/PYK2.

{ECO:0000269|PubMed:10022920, ECO:0000269|PubMed:12771146,
ECO:0000269|PubMed:12893833, ECO:0000269|PubMed:14585963,
ECO:0000269|PubMed:15050747, ECO:0000269|PubMed:15166227,
ECO:0000269|PubMed:17634955, ECO:0000269|PubMed:18086875,
ECO:0000269|PubMed:18339875, ECO:0000269|PubMed:18587400,
ECO:0000269|PubMed:18765415, ECO:0000269|PubMed:19086031,
ECO:0000269|PubMed:19207108, ECO:0000269|PubMed:19244237,
ECO:0000269|PubMed:19428251, ECO:0000269|PubMed:19648005,
ECO:0000269|PubMed:19880522, ECO:0000269|PubMed:20001213,
ECO:0000269|PubMed:20381867, ECO:0000269|PubMed:20521079,
ECO:0000269|PubMed:21357692, ECO:0000269|PubMed:21533080,

Target Details

ECO:0000269|PubMed:7544443, ECO:0000269|PubMed:8670418,
ECO:0000269|PubMed:8849729}.

Molecular Weight: 115.9 kDa

UniProt: [Q14289](#)

Pathways: [EGFR Signaling Pathway](#), [Regulation of Actin Filament Polymerization](#), [Carbohydrate Homeostasis](#), [Glycosaminoglycan Metabolic Process](#), [Cellular Glucan Metabolic Process](#), [Cell-Cell Junction Organization](#), [Regulation of Cell Size](#), [Regulation of Carbohydrate Metabolic Process](#), [Hepatitis C](#), [Protein targeting to Nucleus](#), [CXCR4-mediated Signaling Events](#), [Signaling Events mediated by VEGFR1 and VEGFR2](#), [Signaling of Hepatocyte Growth Factor Receptor](#), [Positive Regulation of fat Cell Differentiation](#), [VEGF Signaling](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months