Datasheet for ABIN3096323

HISPPD2A Protein (AA 1-1433) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	HISPPD2A (PPIP5K1)
Protein Characteristics:	AA 1-1433
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This HISPPD2A protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Sequence:	MWSLTASEGE STTAHFFLGA GDEGLGTRGI GMRPEESDSE LLEDEEDEVP PEPQIIVGIC AMTKKSKSKP MTQILERLCR FDYLTVVILG EDVILNEPVE NWPSCHCLIS FHSKGFPLDK AVAYSKLRNP FLINDLAMQY YIQDRREVYR ILQEEGIDLP RYAVLNRDPA RPEECNLIEG EDQVEVNGAV FPKPFVEKPV SAEDHNVYIY YPSSAGGGSQ RLFRKIGSRS SVYSPESSVR KTGSYIYEEF MPTDGTDVKV YTVGPDYAHA EARKSPALDG KVERDSEGKE IRYPVMLTAM EKLVARKVCV AFKQTVCGFD LLRANGHSFV CDVNGFSFVK NSMKYYDDCA KILGNTIMRE LAPQFQIPWS IPTEAEDIPI VPTTSGTMME LRCVIAIIRH GDRTPKQKMK MEVKHPRFFA LFEKHGGYKT GKLKLKRPEQ LQEVLDITRL LLAELEKEPG GEIEEKTGKL EQLKSVLEMY GHFSGINRKV QLTYYPHGVK ASNEGQDPQR ETLAPSLLLV LKWGGELTPA GRVQAEELGR AFRCMYPGGQ GDYAGFPGCG LLRLHSTFRH DLKIYASDEG RVQMTAAAFA KGLLALEGEL TPILVQMVKS ANMNGLLDSD GDSLSSCQHR VKARLHHILQ QDAPFGPEDY DQLAPTRSTS LLNSMTIIQN PVKVCDQVFA LIENLTHQIR ERMQDPRSVD LQLYHSETLE LMLQRWSKLE

RDFRQKSGRY DISKIPDIYD CVKYDVQHNG SLGLQGTAEL LRLSKALADV VIPQEYGISR EEKLEIAVGF CLPLLRKILL DLQRTHEDES VNKLHPLCYL RYSRGVLSPG RHVRTRLYFT SESHVHSLLS VFRYGGLLDE TQDAQWQRAL DYLSAISELN YMTQIVIMLY EDNTQDPLSE ERFHVELHFS PGVKGVEEEG SAPAGCGFRP ASSENEEMKT NQGSMENLCP GKASDEPDRA LQTSPQPPEG PGLPRRSPLI RNRKAGSMEV LSETSSSRPG GYRLFSSSRP PTEMKQSGLG SQCTGLFSTT VLGGSSSAPN LQDYARSHGK KLPPASLKHR DELLFVPAVK RFSVSFAKHP TNGFEGCSMV PTIYPLETLH NALSLRQVSE FLSRVCQRHT DAQAQASAAL FDSMHSSQAS DNPFSPPRTL HSPPLQLQQR SEKPPWYSSG PSSTVSSAGP SSPTTVDGNS QFGFSDQPSL NSHVAEEHQG LGLLQETPGS GAQELSIEGE QELFEPNQSP QVPPMETSQP YEEVSQPCQE VPDISQPCQD ISEALSQPCQ KVPDISQQCQ ENHDNGNHTC QEVPHISQPC QKSSQLCQKV SEEVCQLCLE NSEEVSQPCQ GVSVEVGKLV HKFHVGVGSL VQETLVEVGS PAEEIPEEVI QPYQEFSVEV GRLAQETSAI NLLSQGIPEI DKPSQEFPEE IDLQAQEVPE EIN

Sequence without tag. The proposed Strep-Tag is based on experience s 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 in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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 will ensure that you receive a correctly folded protein.
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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional

Product Details

components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	HISPPD2A (PPIP5K1)
Alternative Name:	PPIP5K1 (PPIP5K1 Products)
Background:	Inositol hexakisphosphate and diphosphoinositol-pentakisphosphate kinase 1 (EC 2.7.4.24) (Diphosphoinositol pentakisphosphate kinase 1) (Histidine acid phosphatase domain-containing protein 2A) (IP6 kinase) (Inositol pyrophosphate synthase 1) (InsP6 and PP-IP5 kinase 1) (VIP1 homolog) (hsVIP1),FUNCTION: Bifunctional inositol kinase that acts in concert with the IP6K kinases IP6K1, IP6K2 and IP6K3 to synthesize the diphosphate group-containing inositol pyrophosphates diphosphoinositol pentakisphosphate, PP-InsP5, and bis-diphosphoinositol tetrakisphosphate, (PP)2-InsP4. PP-InsP5 and (PP)2-InsP4, also respectively called InsP7 and InsP8, regulate a variety of cellular processes, including apoptosis, vesicle trafficking, cytoskeletal dynamics, exocytosis, insulin signaling and neutrophil activation. Phosphorylates inositol hexakisphosphate (InsP6) at position 1 to produce PP-InsP5 which is in

Target Details

	turn phosphorylated by IP6Ks to produce (PP)2-InsP4. Alternatively, phosphorylates PP-InsP5 at position 1, produced by IP6Ks from InsP6, to produce (PP)2-InsP4. Activated when cells are exposed to hyperosmotic stress. {ECO:0000269|PubMed:17690096, ECO:0000269|PubMed:17702752}.
Molecular Weight:	159.5 kDa
UniProt:	Q6PFW1
Pathways:	Inositol Metabolic Process

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.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.

Handling

Expiry Date:	Unlimited (if stored properly)

Images

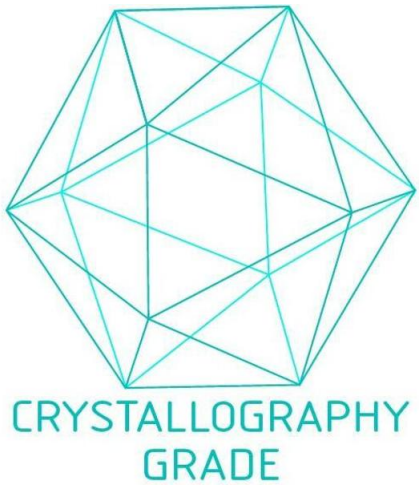

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process