abcam

Product datasheet

Recombinant Human SHP2 protein (His tag) ab227396

1 Image

Description

Product name	Recombinant Human SHP2 protein (His tag)
Purity	> 90 % SDS-PAGE. ab227396 was purified by using conventional chromatography techniques.
Endotoxin level	< 1.000 Eu/µg
Expression system	Baculovirus infected insect cells
Accession	Q06124
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	ADPMTSRRWF HPNITGVEAE NLLLTRGVDG SFLARPSKSN PGDFTLSVRR NGAVTHIKIQ NTGDYYDLYG GEKFATLAEL VQYYMEHHGQ LKEKNGDVIE LKYPLNCADP TSERWFHGHL SGKEAEKLLT EKGKHGSFLV RESQSHPGDF VLSVRTGDDK GESNDGKSKV THVMIRCQEL KYDVGGGERF DSLTDLVEHY KKNPMVETLG TVLQLKQPLN TTRINAAEIE SRVRELSKLA ETTDKVKQGF WEEFETLQQQ ECKLLYSRKE GQRQENKNKN RYKNILPFDH TRVVLHDGDP NEPVSDYINA NIIMPEFETK CNNSKPKKSY IATQGCLQNT VNDFWRMVFQ ENSRVIVMTT KEVERGKSKC VKYWPDEYAL KEYGVMRVRN VKESAAHDYT LRELKLSKVG QGNTERTVWQ YHFRTWPDHG VPSDPGGVLD FLEEVHHKQE SIMDAGPVVV HCRHHHHHH
Predicted molecular weight	54 kDa including tags
Amino acids	1 to 460
Tags	His tag C-Terminus
Additional sequence information	NP_542168

Specifications

Our Abpromise guarantee covers the use of **ab227396** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE

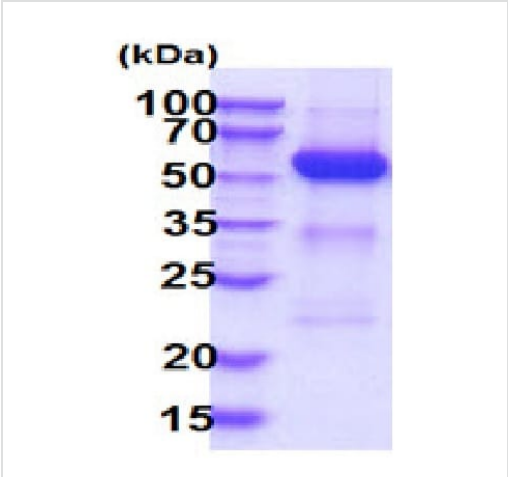
Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. pH: 7.40 Constituents: PBS, 10% Glycerol (glycerin, glycerine)

General Info

Function	Acts downstream of various receptor and cytoplasmic protein tyrosine kinases to participate in the signal transduction from the cell surface to the nucleus.
Tissue specificity	Widely expressed, with highest levels in heart, brain, and skeletal muscle.
Involvement in disease	Defects in PTPN11 are the cause of LEOPARD syndrome type 1 (LEOPARD1) [MIM:151100]. It is an autosomal dominant disorder allelic with Noonan syndrome. The acronym LEOPARD stands for lentigines, electrocardiographic conduction abnormalities, ocular hypertelorism, pulmonic stenosis, abnormalities of genitalia, retardation of growth, and deafness. Defects in PTPN11 are the cause of Noonan syndrome type 1 (NS1) [MIM:163950]. Noonan syndrome (NS) is a disorder characterized by dysmorphic facial features, short stature, hypertelorism, cardiac anomalies, deafness, motor delay, and a bleeding diathesis. Some patients with Noonan syndrome type 1 develop multiple giant cell lesions of the jaw or other bony or soft tissues, which are classified as pigmented villomoduolar synovitis (PVNS) when occurring in the jaw or joints. Note=Mutations in PTPN11 account for more than 50% of the cases. Rarely, NS is associated with juvenile myelomonocytic leukemia (JMML). NS1 inheritance is autosomal dominant. Defects in PTPN11 are a cause of juvenile myelomonocytic leukemia (JMML) [MIM:607785]. JMML is a pediatric myelodysplastic syndrome that constitutes approximately 30% of childhood cases of myelodysplastic syndrome (MDS) and 2% of leukemia. It is characterized by leukocytosis with tissue infiltration and in vitro hypersensitivity of myeloid progenitors to granulocyte-macrophage colony stimulating factor. Defects in PTPN11 are a cause of metachondromatosis (MC) [MIM:156250]. It is a skeletal disorder with radiologic fetarures of both multiple exostoses and Ollier disease, characterized by the presence of multiple enchondromas and osteochondroma-like lesions.
Sequence similarities	Belongs to the protein-tyrosine phosphatase family. Non-receptor class 2 subfamily. Contains 2 SH2 domains. Contains 1 tyrosine-protein phosphatase domain.
Domain	The SH2 domains repress phosphatase activity. Binding of these domains to phosphotyrosine-containing proteins relieves this auto-inhibition, possibly by inducing a conformational change in the enzyme.
Post-translational modifications	Phosphorylated on Tyr-546 and Tyr-584 upon receptor protein tyrosine kinase activation; which creates a binding site for GRB2 and other SH2-containing proteins.
Cellular localization	Cytoplasm.

Images



SDS-PAGE - Recombinant Human SHP2 protein (His tag) (ab227396)

15% SDS-PAGE - 3 µg Recombinant Human SHP2 protein (His tag) (ab227396).

Migrates at 50-70 kDa (SDS-PAGE under reducing conditions).

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