Datasheet for ABIN7563955

SIX Homeobox 1 Protein (SIX1) (AA 1-284) (His tag)

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Overview

Quantity:	1 mg
Target:	SIX Homeobox 1 (SIX1)
Protein Characteristics:	AA 1-284
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SIX Homeobox 1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Six1 Protein expressed in mammalian cells.
Sequence:	MSMLPSFGFT QEQVACVCEV LQQGGNLERL GRFLWSLPAC DHLHKNESVL KAKAVVAFHR GNFRELYKIL ESHQFSPHNH PKLQQLWLKA HYVEAEKLRG RPLGAVGKYR VRRKFPLPRT IWDGEETSYC FKEKSRGVLR EWYAHNPYPS PREKRELAEA TGLTTTQVSN WFKNRRQRDR AAEAKERENT ENNNSSSNKQ NQLSPLEGGK PLMSSSEEEF SPPQSPDQNS VLLLQSNMGH ARSSNYSLPG LTASQPSHGL QAHQHQLQDS LLGPLTSSLV DLGS **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.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits:

Product Details

- 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, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	SIX Homeobox 1 (SIX1)
Alternative Name:	Six1 (SIX1 Products)
Background:	Homeobox protein SIX1 (Sine oculis homeobox homolog 1),FUNCTION: Transcription factor that is involved in the regulation of cell proliferation, apoptosis and embryonic development (PubMed:12215533, PubMed:12668636, PubMed:12834866, PubMed:14628042, PubMed:14695375). Plays an important role in the development of several organs, including kidney, muscle and inner ear (PubMed:12668636, PubMed:12783782, PubMed:12834866, PubMed:14628042, PubMed:14695375). Depending on context, functions as a transcriptional repressor or activator (PubMed:14628042). Lacks an activation domain, and requires interaction with EYA family members for transcription activation (By similarity). Mediates nuclear translocation of EYA1 and EYA2 (By similarity). Binds the 5'-TCA[AG][AG]TTNC-3' motif present in the MEF3 element in the MYOG promoter and CIDEA enhancer (By similarity). Regulates the expression of numerous genes, including MYC, CCNA1, CCND1 and EZR (PubMed:16488997). Acts as an activator of the IGFBP5 promoter, probably coactivated by EYA2 (PubMed:11978764). Repression of precursor cell proliferation in myoblasts is switched to activation through recruitment of EYA3 to the SIX1-DACH1 complex (PubMed:14628042).

Target Details

	During myogenesis, seems to act together with EYA2 and DACH2. Regulates the expression of CCNA1 (By similarity). Promotes brown adipocyte differentiation (PubMed:27923061). {ECO:0000250|UniProtKB:Q15475, ECO:0000269|PubMed:11978764, ECO:0000269|PubMed:12215533, ECO:0000269|PubMed:12668636, ECO:0000269|PubMed:12783782, ECO:0000269|PubMed:12834866, ECO:0000269|PubMed:14628042, ECO:0000269|PubMed:14695375, ECO:0000269|PubMed:16488997, ECO:0000269|PubMed:27923061}.
Molecular Weight:	32.2 kDa
UniProt:	Q62231
Pathways:	Sensory Perception of Sound, Regulation of Muscle Cell Differentiation, Tube Formation, Skeletal Muscle Fiber Development

Application Details

Application Notes:	We expect the protein to work for functional studies. 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