Datasheet for ABIN7557597

TBX2 Protein (AA 1-711) (His tag)

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Overview

Quantity:	1 mg
Target:	TBX2
Protein Characteristics:	AA 1-711
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TBX2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat Tbx2 Protein expressed in mammalien cells.
Sequence:	MREPALAASA MAYHPFHAPR PADFPMSAFL AAAQPSFFPA LALPPGALGK PLPDPGLAGA AAAAAAAAAA AEAGLHVSAL GPHPPAAHLR SLKSLEPEDE VEDDPKVTLE AKELWDQFHK LGTEMVITKS GRRMFPPFKV RVSGLDKKAK YILLMDIVAA DDCRYKFHNS RWMVAGKADP EMPKRMYIHP DSPATGEQWM AKPVAFHKLK LTNNISDKHG FTILNSMHKY QPRFHIVRAN DILKLPYSTF RTYVFPETDF IAVTAYQNDK ITQLKIDNNP FAKGFRDTGN GRREKRKQLT LPTLRLYEEH CKPERDGAES DASSCDPPPA REPPPSPSAA PSPLRLHRAR AEEKPGAADS DPEPERTGEE RSAAPLGRSP SRDASPARLT EPERSRERRS PERCSKEPTE GGGDGPFSLR SLEKERPEAR RKDEGRKDVG EGKEPSLAPL VVQTDSASPL GAGHLPGLAF SSHLHGQQFF GPLGAGQPLF LHPGQFAMGP GAFSAMGMGH LLASVAGGSG SSGGAGPGTA AGLDAGGLGP AASAASTAAP FPFHLSQHML ASQGIPMPTF GGLFPYPYTY MAAAAAAASA LPATSAAAAA AAAAGSLSRS PFLGSARPRL RFSPYQIPVT IPPSTSLLTT GLAAEGSKGG NSREPSPLPE

Product Details

	LALRKVGGPS RGALSPSGSA KEAASELQSI QRLVSGLESQ RALSPGRESP K **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 mammalien 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:	TBX2
Alternative Name:	Tbx2 (TBX2 Products)
Background:	T-box transcription factor TBX2 (T-box protein 2),FUNCTION: Transcription factor which acts as a transcriptional repressor (PubMed:22186728, PubMed:11867218, PubMed:18025091, PubMed:12023302). May also function as a transcriptional activator (PubMed:26486273, PubMed:22186728, PubMed:11867218). Binds to the palindromic T site 5'-TTCACACCTAGGTGTGAA-3' DNA sequence, or a half-site, which are present in the regulatory region of several genes (PubMed:9710594, PubMed:26971330, PubMed:12023302, PubMed:33731112, PubMed:27720610). Required for cardiac atrioventricular canal formation (PubMed:15459098). May cooperate with NKX2.5 to negatively modulate expression of NPPA/ANF in the atrioventricular canal (PubMed:12023302). May play a role as a positive

Target Details

	regulator of TGFB2 expression, perhaps acting in concert with GATA4 in the developing outflow tract myocardium (PubMed:22186728). Plays a role in limb pattern formation (PubMed:15459098). Acts as a transcriptional repressor of ADAM10 gene expression, perhaps in concert with histone deacetylase HDAC1 as cofactor (PubMed:30599067). Involved in branching morphogenesis in both developing lungs and adult mammary glands, via negative modulation of target genes, acting redundantly with TBX3 (PubMed:27720610, PubMed:16222716). Required, together with TBX3, to maintain cell proliferation in the embryonic lung mesenchyme, perhaps acting downstream of SHH, BMP and TGFbeta signaling (PubMed:27720610). Involved in modulating early inner ear development, acting independently of, and also redundantly with TBX3, in different subregions of the developing ear (PubMed:33795231). Acts as a negative regulator of PML function in cellular senescence (By similarity). Acts as a negative regulator of expression of CDKN1A/p21, IL33 and CCN4, repression of CDKN1A is enhanced in response to UV-induced stress, perhaps as a result of phosphorylation by p38 MAPK (PubMed:18025091, PubMed:33731112). Negatively modulates expression of CDKN2A/p19ARF and CDH1/E-cadherin (By similarity). Plays a role in induction of the epithelial-mesenchymal transition (EMT) (By similarity). Plays a role in melanocyte proliferation, perhaps via regulation of cyclin CCND1 (PubMed:26486273). Involved in melanogenesis, acting via negative modulation of expression of DHICA oxidase/TYRP1 and P protein/OCA2 (PubMed:26971330, PubMed:9710594). Involved in regulating retinal pigment epithelium (RPE) cell proliferation, perhaps via negatively modulating transcription of the transcription factor CEBPD (PubMed:28910203). {ECO:0000250|UniProtKB:Q13207, ECO:0000269|PubMed:11867218, ECO:0000269|PubMed:12023302, ECO:0000269|PubMed:15459098, ECO:0000269|PubMed:16222716, ECO:0000269|PubMed:18025091, ECO:0000269|PubMed:22186728, ECO:0000269|PubMed:26486273, ECO:0000269|PubMed:26971330, ECO:0000269|PubMed:27720610, ECO:0000269|PubMed:28910203, ECO:0000269|PubMed:30599067, ECO:0000269|PubMed:33731112, ECO:0000269|PubMed:33795231, ECO:0000269|PubMed:9710594}.
Molecular Weight:	75.1 kDa
UniProt:	Q60707
Pathways:	p53 Signaling

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies

Application Details

	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