

Datasheet for ABIN7547248
DUX4 Protein (AA 1-424) (His tag)



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Overview

Quantity:	1 mg
Target:	DUX4
Protein Characteristics:	AA 1-424
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This DUX4 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant DUX4 Protein expressed in mammalian cells.
Sequence:	<p>MALPTPSDST LPAEARGRGR RRRLVWTPSQ SEALRACFER NPYPGIATRE RLAQAIGIPE PRVQIWFQNE RSRQLRQHRR ESRPWPGRRG PPEGRRKRTA VTGSQTALLL RAFEKDRFPG IAAREELARE TGLPESRIQI WFQNRARRHP GQGGRAPAQ GGLCSAAPGG GHPAPSWVAF AHTGAWGTGL PAPHVPCAPG ALPQGAFVSQ AARAAPALQP SQAAPAEGIS QPAPARGDFA YAAPAPPDGA LSHPQAPRWP PHPGKSREDR DPQRDGLPGP CAVAQPGPAQ AGPQGQGVLA PPTSQGSPWW GWGRGPQVAG AAWEPQAGAA PPPQPAPPDA SASARQGQMQ GIPAPSQALQ EPAPWSALPC GLLLDELLAS PEFLQQAQPL LETEAPGELE ASEEAAASLEA PLSEEEYRAL LEEL</p> <p>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.</p> <p>In case you have a special request, please contact us.</p>
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.

Product Details

Characteristics:	<div>Key Benefits:</div> <ul style="list-style-type: none">• 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). <p>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.</p> <p>If you are not interested in a full length protein, please contact us for individual protein fragments.</p> <p>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.</p>
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	DUX4
Alternative Name:	DUX4 (DUX4 Products)
Background:	<p>Double homeobox protein 4 (Double homeobox protein 10),FUNCTION: [Isoform 1]: Transcription factor that is selectively and transiently expressed in cleavage-stage embryos (PubMed:28459457). Binds to double-stranded DNA elements with the consensus sequence 5'-TAATCTAATCA-3' (PubMed:28459457, PubMed:28459454, PubMed:29572508, PubMed:30540931, PubMed:30315230). Binds to chromatin containing histone H3 acetylated at 'Lys-27' (H3K27ac) and promotes deacetylation of H3K27ac. In parallel, binds to chromatin that lacks histone H3 acetylation at 'Lys-27' (H3K27ac) and recruits EP300 and CREBBP to promote acetylation of histone H3 at 'Lys-27' at new sites (PubMed:26951377). Involved in transcriptional regulation of numerous genes, primarily as transcriptional activator, but mediates also repression of a set of target genes (PubMed:17984056, PubMed:27378237, PubMed:26951377, PubMed:28459457, PubMed:28459454, PubMed:29618456, PubMed:30540931, PubMed:29572508). Promotes expression of ZSCAN4 and KDM4E, two proteins with essential roles during early embryogenesis (PubMed:27378237,</p>

Target Details

PubMed:26951377, PubMed:28459457, PubMed:29618456). Heterologous expression in cultured embryonic stem cells mediates also transcription of HERVL retrotransposons and transcripts derived from ACRO1 and HSATII satellite repeats (PubMed:28459457). May activate expression of PITX1 (PubMed:17984056). May regulate microRNA (miRNA) expression (PubMed:24145033). Inappropriate expression can inhibit myogenesis and promote apoptosis (PubMed:26951377, PubMed:28935672, PubMed:29618456).

{ECO:0000269|PubMed:17984056, ECO:0000269|PubMed:24145033, ECO:0000269|PubMed:26951377, ECO:0000269|PubMed:27378237, ECO:0000269|PubMed:28459454, ECO:0000269|PubMed:28459457, ECO:0000269|PubMed:28935672, ECO:0000269|PubMed:29572508, ECO:0000269|PubMed:29618456, ECO:0000269|PubMed:30315230, ECO:0000269|PubMed:30540931}., FUNCTION: [Isoform 2]: Probably inactive as a transcriptional activator, due to the absence of the C-terminal region that is important for transcriptional activation. Can inhibit transcriptional activation mediated by isoform 1. Heterologous expression of isoform 2 has no deleterious effect on cell survival. {ECO:0000269|PubMed:29618456}.

Molecular Weight:	44.9 kDa
UniProt:	Q9UBX2

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