Datasheet for ABIN7549787

NFE2L1 Protein (AA 1-772) (His tag)

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Overview

Quantity:	1 mg
Target:	NFE2L1
Protein Characteristics:	AA 1-772
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NFE2L1 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Purpose:	Custom-made recombinat NFE2L1 Protein expressed in mammalien cells.
Sequence:	MLSLKKYLTE GLLQFTILLS LIGVRVDVDT YLTSQLPPLR EIILGPSSAY TQTQFHNLRN TLDGYGIHPK SIDLDNYFTA RRLLSQVRAL DRFQVPTTEV NAWLVHRDPE GSVSGSQPNS GLALESSSGL QDVTGPDNGV RESETEQGFG EDLEDLGAVA PPVSGDLTKE DIDLIDILWR QDIDLGAGRE VFDYSHRQKE QDVEKELRDG GEQDTWAGEG AEALARNLLV DGETGESFPA QVPSGEDQTA LSLEECLRLL EATCPFGENA EFPADISSIT EAVPSESEPP ALQNNLLSPL LTGTESPFDL EQQWQDLMSI MEMQAMEVNT SASEILYSAP PGDPLSTNYS LAPNTPINQN VSLHQASLGG CSQDFLLFSP EVESLPVASS STLLPLAPSN STSLNSTFGS TNLTGLFFPP QLNGTANDTA GPELPDPLGG LLDEAMLDEI SLMDLAIEEG FNPVQASQLE EEFDSDSGLS LDSSHSPSSL SSSEGSSSSS SSSSSSSSSA SSSASSSFSE EGAVGYSSDS ETLDLEEAEG AVGYQPEYSK FCRMSYQDPA QLSCLPYLEH VGHNHTYNMA PSALDSADLP PPSALKKGSK EKQADFLDKQ MSRDEHRARA MKIPFTNDKI INLPVEEFNE LLSKYQLSEA QLSLIRDIRR

Product Details

	RGKNKMAAQN CRKRKLDTIL NLERDVEDLQ RDKARLLREK VEFLRSLRQM KQKVQSLYQE VFGRLRDENG RPYSPSQYAL QYAGDGSVLL IPRTMADQQA RRQERKPKDR RK **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:	NFE2L1
Alternative Name:	NFE2L1 (NFE2L1 Products)
Background:	Endoplasmic reticulum membrane sensor NFE2L1 (Locus control region-factor 1) (LCR-F1) (Nuclear factor erythroid 2-related factor 1) (NF-E2-related factor 1) (NFE2-related factor 1) (Nuclear factor, erythroid derived 2, like 1) (Protein NRF1, p120 form) (Transcription factor 11) (TCF-11) [Cleaved into: Transcription factor NRF1 (Protein NRF1, p110 form)],FUNCTION: [Endoplasmic reticulum membrane sensor NFE2L1]: Endoplasmic reticulum membrane sensor that translocates into the nucleus in response to various stresses to act as a transcription factor (PubMed:20932482, PubMed:24448410). Constitutes a precursor of the transcription factor NRF1 (By similarity). Able to detect various cellular stresses, such as cholesterol excess,

oxidative stress or proteasome inhibition (PubMed:20932482). In response to stress, it is released from the endoplasmic reticulum membrane following cleavage by the protease DDI2 and translocates into the nucleus to form the transcription factor NRF1 (By similarity). Acts as a key sensor of cholesterol excess: in excess cholesterol conditions, the endoplasmic reticulum membrane form of the protein directly binds cholesterol via its CRAC motif, preventing cleavage and release of the transcription factor NRF1, thereby allowing expression of genes promoting cholesterol removal, such as CD36 (By similarity). Involved in proteasome homeostasis: in response to proteasome inhibition, it is released from the endoplasmic reticulum membrane, translocates to the nucleus and activates expression of genes encoding proteasome subunits (PubMed:20932482). {ECO:0000250|UniProtKB:Q61985, ECO:0000269|PubMed:20932482, ECO:0000269|PubMed:24448410}., FUNCTION: [Transcription factor NRF1]: CNC-type bZIP family transcription factor that translocates to the nucleus and regulates expression of target genes in response to various stresses (PubMed:8932385, PubMed:9421508). Heterodimerizes with small-Maf proteins (MAFF, MAFG or MAFK) and binds DNA motifs including the antioxidant response elements (AREs), which regulate expression of genes involved in oxidative stress response (PubMed:8932385, PubMed:9421508). Activates or represses expression of target genes, depending on the context (PubMed:8932385, PubMed:9421508). Plays a key role in cholesterol homeostasis by acting as a sensor of cholesterol excess: in low cholesterol conditions, translocates into the nucleus and represses expression of genes involved in defense against cholesterol excess, such as CD36 (By similarity). In excess cholesterol conditions, the endoplasmic reticulum membrane form of the protein directly binds cholesterol via its CRAC motif, preventing cleavage and release of the transcription factor NRF1, thereby allowing expression of genes promoting cholesterol removal (By similarity). Critical for redox balance in response to oxidative stress: acts by binding the AREs motifs on promoters and mediating activation of oxidative stress response genes, such as GCLC, GCLM, GSS, MT1 and MT2 (By similarity). Plays an essential role during fetal liver hematopoiesis: probably has a protective function against oxidative stress and is involved in lipid homeostasis in the liver (By similarity). Involved in proteasome homeostasis: in response to proteasome inhibition, mediates the 'bounce-back' of proteasome subunits by translocating into the nucleus and activating expression of genes encoding proteasome subunits (PubMed:20932482). Also involved in regulating glucose flux (By similarity). Together with CEBPB, represses expression of DSPP during odontoblast differentiation (PubMed:15308669). In response to ascorbic acid induction, activates expression of SP7/Osterix in osteoblasts. {ECO:0000250|UniProtKB:Q61985, ECO:0000269|PubMed:15308669, ECO:0000269|PubMed:20932482, ECO:0000269|PubMed:8932385, ECO:0000269|PubMed:9421508}.

Target Details

Molecular Weight:	84.7 kDa
UniProt:	Q14494

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.
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