

NFE2L1 Rabbit pAb

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Catalog # AP57549

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q14494
Reactivity	Rat, Mouse
Predicted	Human, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	84704
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NFE2L1
Epitope Specificity	141-240/772
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a protein that is involved in globin gene expression in erythrocytes. Confusion has occurred in bibliographic databases due to the shared symbol of NRF1 for this gene, NFE2L1, and for "nuclear respiratory factor 1" which has an official symbol of NRF1. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	4779
Other Names	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, Transcription factor NRF1, Protein NRF1, p110 form, NFE2L1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

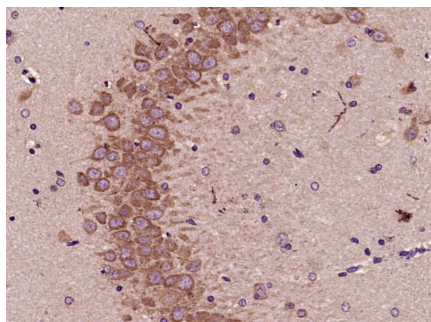
Protein Information

Name	NFE2L1
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).
Cellular Location	[Endoplasmic reticulum membrane sensor NFE2L1]: Endoplasmic reticulum membrane; Single-pass type II membrane protein. Endoplasmic reticulum membrane; Single-pass type III membrane protein. Note=In normal conditions, probably has a single-pass type II membrane protein topology, with the DNA-binding domain facing the endoplasmic reticulum lumen (PubMed:24448410). Following cellular stress, it is rapidly and efficiently retrotranslocated to the cytosolic side of the membrane, a process dependent on p97/VCP, to have a single-pass type III membrane protein topology with the major part of the protein facing the cytosol (PubMed:24448410). Retrotranslocated proteins are normally rapidly degraded by the proteasome and active species do not accumulate (PubMed:24448410). However, retrotranslocated protein NFE2L1 escapes degradation and is cleaved at Leu-104 by DDI2, releasing the protein from the endoplasmic reticulum membrane and forming the transcription factor NRF1 that translocates into the nucleus (PubMed:24448410)

Background

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Images



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NFE2L1) Polyclonal Antibody, Unconjugated (AP57549) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.