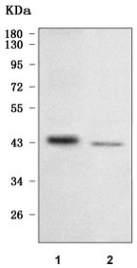
NF-E2 p45 Antibody / Nuclear Factor Erythroid 2 Antibody (RQ8090)

Catalog No.	Formulation	Size
RQ8090	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q16621
Applications	Western blot: 0.5-1ug/ml Direct ELISA: 0.1-0.5ug/ml
Limitations	This NF-E2 p45 Antibody / Nuclear Factor Erythroid 2 Antibody is available for research use only.



NF-E2 p45 Antibody in Human K562 and HepG2 Cells WB. Western blot testing of human K562 erythroleukemia and HepG2 hepatocellular carcinoma cell lysates with NF-E2 p45 Antibody / Nuclear Factor Erythroid 2 Antibody. Lane 1: K562 cell lysate. Lane 2: HepG2 cell lysate. The predicted molecular weight of NFE2 is approximately 41 kDa, with the protein observed at 41-45 kDa.

Description

NF-E2 p45 Antibody / Nuclear Factor Erythroid 2 Antibody detects NFE2, the 45 kDa large subunit of the nuclear factor erythroid 2 transcription factor complex. NFE2 belongs to the cap'n'collar basic leucine zipper family of transcriptional regulators and forms heterodimers with small Maf proteins. These complexes bind regulatory DNA sequences and participate in transcriptional programs involved in hematopoietic differentiation, erythroid gene expression and megakaryocyte development.

NFE2 was originally identified through its role in erythroid-specific transcription. The NF-E2 complex interacts with regulatory elements associated with globin gene expression and contributes to transcriptional control during erythroid maturation. This activity makes NF-E2 p45 relevant to studies of erythropoiesis, hemoglobin production and the molecular mechanisms controlling differentiation of hematopoietic progenitor cells.

NFE2 also has important functions in the megakaryocytic lineage. Expression and activity of the transcription factor contribute to late stages of megakaryocyte maturation, proplatelet formation and platelet production. Alterations in NFE2 expression or function are therefore investigated in disorders involving abnormal erythroid or megakaryocytic development. NFE2 has received particular attention in myeloproliferative neoplasms, where increased expression can accompany abnormal proliferation and differentiation of hematopoietic cells.

As a transcriptional regulator, NFE2 functions through interactions with DNA and other regulatory proteins to influence lineage-specific gene expression. Studying NF-E2 p45 can therefore provide insight into the relationship between transcription factor activity, hematopoietic cell differentiation and disease-associated changes in gene regulation. Its expression in erythroid-lineage cells such as K562 also makes the protein useful for experimental studies of hematopoietic transcriptional control.

This rabbit polyclonal antibody was generated against recombinant human NFE2 spanning amino acids 20-373 and purified by antigen affinity chromatography. It has been evaluated by western blot using human K562 erythroleukemia and HepG2 hepatocellular carcinoma cell lysates, with NFE2 observed at approximately 41-45 kDa. NSJ Bioreagents supplies antibodies for hematopoiesis, transcription factor and cell differentiation research. An NF-E2 p45 Antibody can be used to investigate erythroid differentiation, megakaryocyte biology, hematopoiesis and NFE2-dependent transcriptional regulation.

For a recombinant rabbit monoclonal reagent with broader application validation, see our NFE2 Antibody 31N33 / Erythroid Transcription Factor Marker page.

Application Notes

Optimal dilution of the NF-E2 p45 Antibody / Nuclear Factor Erythroid 2 Antibody should be determined by the researcher.

Immunogen

E. coli-derived recombinant human protein (amino acids E20-D373) was used as the immunogen for the NF-E2 p45 Antibody.

Storage

After reconstitution, the NF-E2 p45 Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

NF-E2 p45 antibody, Nuclear Factor Erythroid 2 antibody, NFE2 antibody, Nuclear Factor Erythroid-Derived 2 antibody, NF-E2 antibody

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