



Rabbit Anti-p45 NF-E2 antibody

SL22023R

Product Name:	p45 NF-E2
Chinese Name:	转录因子NF-E2抗体
Alias:	erythroid-derived 2 45 kDa subunit , Leucine zipper protein NF-E2 , Leucine zipper protein NFE2 , NF E2 , nfe2 , NFE2_HUMAN , Nuclear factor (erythroid derived 2), 45kDa , nuclear factor (erythroid-derived 2), 45kD , Nuclear factor , nuclear factor, erythroid 2 , Nuclear factor, erythroid derived 2 45 kDa subunit , p45 , p45 NF-E2 , p45 NFE2 , Transcription factor NF-E2 45 kDa subunit , Transcription factor NFE2 45 kDa subunit .
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Rabbit,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	41kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human NF-E2:273-373/373
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	PubMed
Product Detail:	NFE2 (Nuclear Factor, Erythroid 2) is a Protein Coding gene. Diseases associated with NFE2 include Essential Thrombocythemia and Spherocytosis, Type 4. Among its related

pathways are Response to elevated platelet cytosolic Ca²⁺ and Hematopoietic Stem Cell Differentiation. Gene Ontology (GO) annotations related to this gene include DNA binding transcription factor activity and transcription coactivator activity. An important paralog of this gene is NFE2L1.

Function:

Component of the NF-E2 complex essential for regulating erythroid and megakaryocytic maturation and differentiation. Binds to the hypersensitive site 2 (HS2) of the beta-globin control region (LCR). This subunit (NFE2) recognizes the TCAT/C sequence of the AP-1-like core palindrome present in a number of erythroid and megakaryocytic gene promoters. Requires MAFK or other small MAF proteins for binding to the NF-E2 motif. May play a role in all aspects of hemoglobin production from globin and heme synthesis to procurement of iron.

Subunit:

Homodimer; can bind DNA as a homodimer. Erythroid transcription activator nuclear factor erythroid-derived 2 (NF-E2), composed of a heterodimer of NFE2 and MAFK, possesses transactivation activity on beta-globin. Also forms high affinity heterodimer with MAFG; the interaction promotes erythropoiesis. Interacts (via the PXY motif 1) with ITCH (via the WW 1 domain); the interaction promotes 'Lys63'-linked ubiquitination of NFE2, translocates it to the cytoplasm and inhibits its transactivation activity. Interacts with KMT2D/MLL2; the interaction promotes transactivation of the beta-globin locus (By similarity). Interacts with MAPK8 (phosphorylated form); the interaction leads to phosphorylation of NFE2 in undifferentiated cells (By similarity).

Subcellular Location:

Nucleus

Tissue Specificity:

Expressed in hematopoietic cells and also in colon and testis.

Post-translational modifications:

Phosphorylated on serine residues. In undifferentiated erythrocytes, phosphorylated by MAPK8 which then leads to ubiquitination and protein degradation.

Sumoylated. Sumoylation is required for translocation to nuclear bodies PODs, anchoring to the gene loci, and transactivation of the beta-globin gene.

Ubiquitinated mainly by 'Lys63'-linked ubiquitin. Polyubiquitination with 'Lys63'-linked ubiquitin by ITCH retains NFE2 in the cytoplasm preventing its transactivation activity.

In undifferentiated erythrocyte, ubiquitinated after MAPK8-mediated phosphorylation leading to protein degradation (By similarity).

Similarity:

Belongs to the bZIP family. CNC subfamily.

SWISS:

Q16621

Gene ID:
4778

Database links:

[Entrez Gene: 4778](#)Human

[Entrez Gene: 18022](#)Mouse

[Entrez Gene: 366998](#)Rat

[Ovim: 601490](#)Human

[SwissProt: Q16621](#)Human

[SwissProt: Q07279](#)Mouse

[SwissProt: Q6AYT2](#)Rat

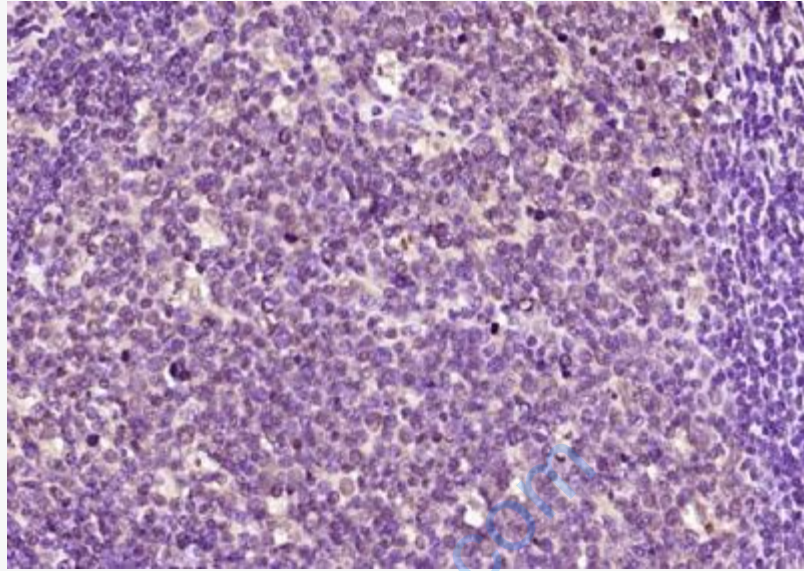
[Unigene: 75643](#)Human

[Unigene: 457989](#)Mouse

[Unigene: 137607](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



Picture:

Paraformaldehyde-fixed, paraffin embedded (human tonsil); 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 (p45 NF-E2) Polyclonal Antibody, Unconjugated (SL22023R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.