# abcam

## Product datasheet

# Recombinant Human NFE2 protein ab117042

### 1 Image

**Description** 

Product name Recombinant Human NFE2 protein

Expression system Wheat germ
Accession Q16621

Protein length Full length protein

Animal free No

Nature Recombinant

**Species** Human

Sequence MSPCPPQQSRNRVIQLSTSELGEMELTWQEIMSITELQGL

**NAPSEPSFEP** 

QAPAPYLGPPPPTTYCPCSIHPDSGFPLPPPPYELPASTS

**HVPDPPYSYG** 

NMAIPVSKPLSLSGLLSEPLQDPLALLDIGLPAGPPKPQE

**DPESDSGLSL** 

NYSDAESLELEGTEAGRRRSEYVEMYPVEYPYSLMPNSL

AHSNYTLPAAE

TPLALEPSSGPVRAKPTARGEAGSRDERRALAMKIPFPT

DKIVNLPVDDF

NELLARYPLTESQLALVRDIRRRGKNKVAAQNCRKRKLETI

VQLERELER

LTNERERLLRARGEADRTLEVMRQQLTELYRDIFQHLRDE

SGNSYSPEEY ALQQAADGTIFLVPRGTKMEATD

Predicted molecular weight 67 kDa including tags

Amino acids 1 to 373

#### **Specifications**

Our Abpromise guarantee covers the use of ab117042 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** ELISA

SDS-PAGE Western blot

Form Liquid

1

#### **Additional notes**

This product was previously labelled as Nuclear Factor Erythroid Derived 2.

#### **Preparation and Storage**

#### Stability and Storage

Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

00.8 :Ha

Constituents: 0.3% Glutathione, 0.79% Tris HCI

#### **General Info**

**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.

Tissue specificity

Expressed in hematopoietic cells and also in colon and testis.

Sequence similarities

Belongs to the bZIP family. CNC subfamily.

Contains 1 bZIP domain.

Domain

The PXY motifs are required for binding WW domains. PXY1 is required to promote transactivation of beta-globin and for hyperacetylation of histone H3, but not for binding to the HS2

promoter site.

Post-translational modifications

Phosphorylated on serine residues (By similarity). 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

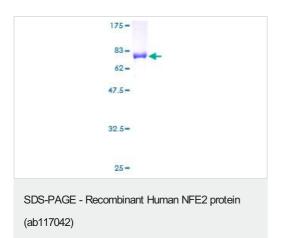
gene loci, and transactivation of the beta-globin gene.

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-mediatd phosphorylation leading to protein degradation.

Cellular localization

Nucleus > PML body. Cytoplasm. The sumoylated form locates to the nuclear bodies PML oncogenic domains (PODs). Translocated to the cytoplasm through interaction with ITCH.

# Images



12.5% SDS-PAGE stained with Coomassie Blue showing ab117042 at approximately 66.77 kDa.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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