Anti-Human NFE2L2, monoclonal

Alternate Names: Nuclear factor erythroid 2-related factor 2

Cat. No. 14-138

FOR RESEARCH USE ONLY NOT FOR USE IN HUMANS

PRODUCT DESCRIPTION

UniProt Summary

UniProt
Primary Accession: Q16236

Transcription activator that binds to antioxidant response (ARE) elements in the promoter regions of target genes. Important for the coordinated up-regulation of genes in response to oxidative stress. May be involved in the transcriptional activation of genes of the beta-globin cluster by mediating enhancer activity of hypersensitive site 2 of the beta-globin locus control region. Heterodimer. Forms a ternary complex with PGAM5 and KEAP1. May bind DNA with an unknown protein. Interacts via its leucine-zipper domain with the coiled-coil domain of PMF1. Interacts with EEF1D at heat shock promoter elements (HSE). Interacts (via the bZIP domain) with MAFK; required for binding to antioxidant...

Physical Characteristics

Quantity: 1 ml (culture supernatant) or 100ug at 1mg/ml (purified)

Format: culture supernatant or purified material

Host/Isotype: mouse IgG1

Clonality: monoclonal; ID R272.1.1D12

Formulation: culture supernatant contains 0.02% NaN3. Purified material contains 30% glycerol, PBS and 0.02% NaN3

Specificity: monospecific for human NFE2L2 ; see “Microarray Analysis” below

Reactivity: human; not tested for cross reactivity in other species

Stability/Storage: 12 months long term: -20°C; short term: 4°C; avoid freeze-thaw cycles; aliquot as required

Handling Notes: small volumes of antibody may occasionally become entrapped in the seal of the product vial during shipment and storage; briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container cap

Tested Research Applications

- **Western Immunoblotting - Not recommended**
- **Immunoprecipitation - PASS by SOP**

Antibody tested as purified IgG. Optimal dilution to be determined by user.

Quality Assurance

Notes:

1. Please refer to the SOP manual (click here) to for detailed explanation of the experimental setup and thresholds used to evaluate the results shown below.
2. Predicted MW of the target protein expressed in the western immunoblotting (WB) and immprecipitation (IP) experiment is **66.66kDa** and the three fusion tags (venus, 3xFLAG, V5) adds another **38.7kDa** to this protein. Therefore the protein is expected to migrate ~**105.36kDa** in a denatured SDS-PAGE gel.
3. See results below for any applicable cautionary notes.

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Lot-specific COA version tracker: v1.0.0

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Quality Assurance (HuProt™ Array)

Determined to be monospecific by visual assesment of HuProt™ v1.0 microarray.

About Z and S Scores: The z-score represents the strength of a signal that a mAb (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SDs) above the mean value of all signals generated on that array. To be considered a definite binding event between a mAb and a protein target, the z-score must have a value of at least 2.5 (SDs above the mean). The s-score represents the relative target specificity of a mAb, and is the difference (also in units of SDs) between the z-score a mAb generates upon binding to one protein and the next highest z-score that the mAb generates against another protein. For example, if a mAb binds to protein X with an z-score of 43 and to protein Y with an z-score of 14, then the s-score for the binding of that mAb to protein X is equal to 29.

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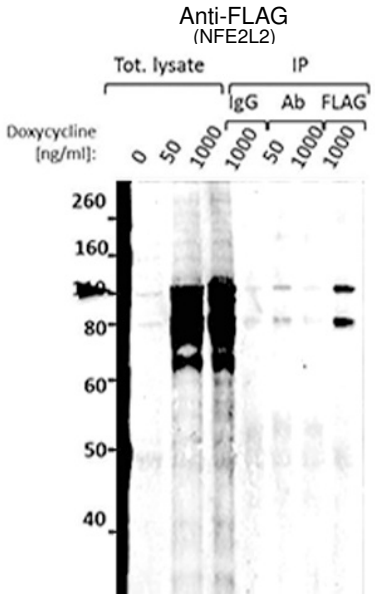
PRODUCT DESCRIPTION

Quality Assurance (continued)

IMMUNOPRECIPITATION - Predicted MW 105.36kDa



Tet-ON HeLa cells were transfected with construct encoding NFE2L2 (NM_006164.2) with an N-terminal fusion of FLAG, YFP (Venus) and V5 tags under a tet-inducible promoter. These cells were stimulated with 0, 50 or 1000 ng/ml doxycycline. Immunoprecipitation (IP) was carried out using 5µg of either IgG, CDI mAb Anti-NFE2L2 (cloneID# R272.1.1D12) or 1 µg of FLAG-M2 (Sigma). Immunoblotting was performed using rabbit Anti-FLAG (1:1000, Cell Signaling #2368). We observe that such fusion proteins are generally expressed as a doublet, with the upper band corresponding to the expected size of the NFE2L2 with an N-terminal fusion of FLAG, YFP (Venus) and V5 tags.

Cautionary notes for IP and WB experiments:

1. As per SOP conditions, this antibody performs poorly in IP

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