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NRF1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14535c

Product Information

Application	WB, E
Primary Accession	Q16656
Other Accession	Q9WU00, Q90X44, NP_005002.3, NP_001035199.1
Reactivity	Human
Predicted	Zebrafish, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34424
Calculated MW	53541
Antigen Region	226-255

Additional Information

Gene ID	4899
Other Names	Nuclear respiratory factor 1, NRF-1, Alpha palindromic-binding protein, Alpha-pal, NRF1
Target/Specificity	This NRF1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 226-255 amino acids from the Central region of human NRF1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NRF1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NRF1
Function	Transcription factor that activates the expression of the EIF2S1 (EIF2-alpha) gene. Links the transcriptional modulation of key metabolic genes to cellular

	growth and development. Implicated in the control of nuclear genes required for respiration, heme biosynthesis, and mitochondrial DNA transcription and replication.
Cellular Location	Nucleus.
Tissue Location	Ubiquitously expressed with strongest expression in skeletal muscle

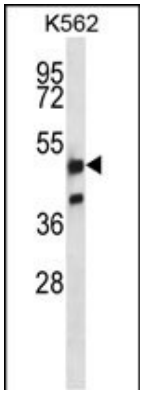
Background

This gene encodes a protein that homodimerizes and functions as a transcription factor which activates the expression of some key metabolic genes regulating cellular growth and nuclear genes required for respiration, heme biosynthesis, and mitochondrial DNA transcription and replication. The protein has also been associated with the regulation of neurite outgrowth. Alternate transcriptional splice variants, which encode the same protein, have been characterized. Additional variants encoding different protein isoforms have been described but they have not been fully characterized. Confusion has occurred in bibliographic databases due to the shared symbol of NRF1 for this gene and for 'nuclear factor (erythroid-derived 2)-like 1' which has an official symbol of NFE2L1.

References

Gonen, N., et al. J. Biol. Chem. 285(44):33602-33613(2010)
Zhang, Y., et al. Biochem. J. 430(3):497-510(2010)
Shao, D., et al. Mitochondrion 10(5):516-527(2010)
Adam, T., et al. Biochem. Biophys. Res. Commun. 398(3):495-499(2010)
Spelbrink, J.N., et al. Hum. Mol. Genet. 4(9):1591-1596(1995)

Images



NRF1 Antibody (Center) (Cat. #AP14535c) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the NRF1 antibody detected the NRF1 protein (arrow).