

NCOA4 Antibody

Mouse Monoclonal Antibody (Mab) Catalog # AM2019b

Specification

NCOA4 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Calculated MW WB,E <u>Q13772</u> <u>NP_001138732.1</u> Human Mouse Monoclonal IgM 69726

NCOA4 Antibody - Additional Information

Gene ID 8031

Other Names

Nuclear receptor coactivator 4, NCoA-4, Androgen receptor coactivator 70 kDa protein, 70 kDa AR-activator, 70 kDa androgen receptor coactivator, Androgen receptor-associated protein of 70 kDa, Ret-activating protein ELE1, NCOA4, ARA70, ELE1, RFG

Target/Specificity

Purified His-tagged NCOA4 protein(Fragment) was used to produced this monoclonal antibody.

Dilution WB~~1:500~1000

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Euglobin precipitation followed by dialysis against PBS.

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

NCOA4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

NCOA4 Antibody - Protein Information

Name NCOA4

Synonyms ARA70 {ECO:0000303|PubMed:8643607}, ELE1

Function Cargo receptor for the autophagic turnover of the iron- binding ferritin complex, playing



a central role in iron homeostasis (PubMed:<u>25327288</u>, PubMed:<u>26436293</u>). Acts as an adapter for delivery of ferritin to lysosomes and autophagic degradation of ferritin, a process named ferritinophagy (PubMed:<u>25327288</u>, PubMed:<u>26436293</u>). Targets the iron-binding ferritin complex to autolysosomes following starvation or iron depletion (PubMed:<u>25327288</u>). Ensures efficient erythropoiesis, possibly by regulating hemin-induced erythroid differentiation (PubMed:<u>26436293</u>). In some studies, has been shown to enhance the androgen receptor AR transcriptional activity as well as acting as ligand-independent coactivator of the peroxisome proliferator-activated receptor (PPAR) gamma (PubMed:<u>10347167</u>, PubMed:<u>8643607</u>). Another study shows only weak behavior as a coactivator for the androgen receptor and no alteration of the ligand responsiveness of the AR (PubMed:<u>10517667</u>). Binds to DNA replication origins, binding is not restricted to sites of active transcription and may likely be independent from the nuclear receptor transcriptional coactivator function (PubMed:<u>24910095</u>). May inhibit activation of DNA replication origins, possibly by obstructing DNA unwinding via interaction with the MCM2-7 complex (PubMed:<u>24910095</u>).

Cellular Location

Cytoplasmic vesicle, autophagosome. Autolysosome. Nucleus Chromosome

Tissue Location

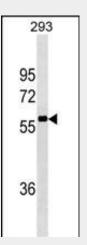
Widely expressed. Also detected in adipose tissues and in different cell lines. Isoform Beta is only expressed in testis

NCOA4 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

NCOA4 Antibody - Images



NCOA4 Antibody (Cat. #AM2019b) western blot analysis in 293 cell line lysates (35µg/lane). This demonstrates the NCOA4 antibody detected the NCOA4 protein (arrow).

NCOA4 Antibody - Background



This gene encodes an androgen receptor coactivator. The encoded protein interacts with the androgen receptor in a ligand-dependent manner to enhance its transcriptional activity. Chromosomal translocations between this gene and the ret tyrosine kinase gene, also located on chromosome 10, have been associated with papillary thyroid carcinoma. Alternatively spliced transcript variants have been described. Pseudogenes are present on chromosomes 4, 5, 10, and 14.

NCOA4 Antibody - References

Sadow, P.M., et al. Endocr. Pathol. 21(2):73-79(2010) Landa, I., et al. PLoS Genet. 5 (9), E1000637 (2009) : Richardson, D.S., et al. Cancer Res. 69(11):4861-4869(2009) Peng, Y., et al. Am. J. Pathol. 172(1):225-235(2008) Bongarzone, I., et al. Genomics 42(2):252-259(1997)