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Anti-NCOA4 Antibody

Catalog # AP60070

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q13772
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	69726

Additional Information

Gene ID	8031
Other Names	ARA70; ELE1; RFG; 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
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human NCOA4. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

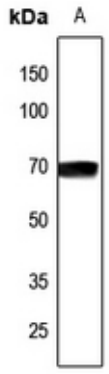
Name	NCOA4
Synonyms	ARA70 {ECO:0000303|PubMed:8643607}, ELE1
Function	Cargo receptor for the autophagic turnover of the iron- binding ferritin complex, playing a central role in iron homeostasis (PubMed:25327288, PubMed:26436293). Acts as an adapter for delivery of ferritin to lysosomes and autophagic degradation of ferritin, a process named ferritinophagy (PubMed:25327288, PubMed:26436293). Targets the iron-binding ferritin complex to autolysosomes following starvation or iron depletion (PubMed:25327288). Ensures efficient erythropoiesis, possibly by regulating hemin-induced erythroid differentiation (PubMed:26436293). 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:10347167,

PubMed:8643607). Another study shows only weak behavior as a coactivator for the androgen receptor and no alteration of the ligand responsiveness of the AR (PubMed:10517667). 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:24910095). May inhibit activation of DNA replication origins, possibly by obstructing DNA unwinding via interaction with the MCM2-7 complex (PubMed:24910095).

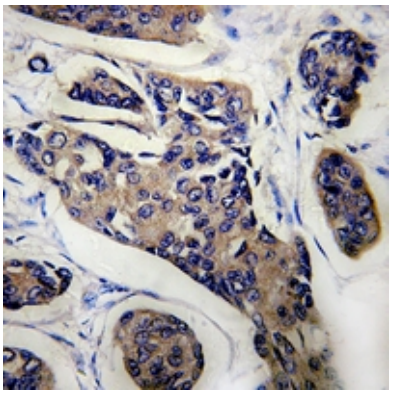
Cellular Location Cytoplasmic vesicle, autophagosome. Autolysosome. Nucleus Chromosome

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

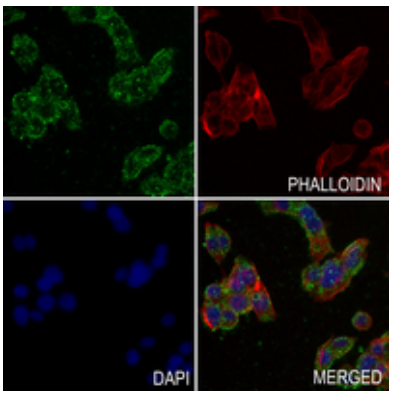
Images



Western blot analysis of NCOA4 expression in H1688 (A) whole cell lysates. (Predicted band size: 32; 69; 71; 73 kD; Observed band size: 70 kD)



Immunohistochemical analysis of NCOA4 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of NCOA4 staining in MDAMB231 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).