

Clusterin- α (C-18): sc-6419

BACKGROUND

Clusterin, also designated complement lysis inhibitor (CLI), apolipoprotein J (APOJ), sulfated glycoprotein 2 (SGP2), SP-40 and testosterone-repressed prostate message 2 (TRPM2), is a secretory, heterodimeric glycoprotein that influences immune regulation, cell adhesion, transformation, lipid transportation, tissue remodeling, membrane recycling and cell-cell interactions. Clusterin is synthesized as a 449 amino acid poly-peptide that is posttranslationally cleaved at an internal bond between Arg 227 and Ser 228. Two subunits, α and β , are associated through disulfide bonds. The β subunit (also called ApoJ α) corresponds to residues 23-227. The α subunit (also called ApoJ β) corresponds to residues 228-449. Overexpression of Clusterin appears to be more common in late stages of mammary tumor progression. Clusterin markedly influences β -Amyloid structure and neuritic toxicity *in vivo* and may influence Alzheimer's disease pathogenesis.

CHROMOSOMAL LOCATION

Genetic locus: CLU (human) mapping to 8p21.1; Clu (mouse) mapping to 14 D1.

SOURCE

Clusterin- α (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Clusterin- α of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6419 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Clusterin- α (C-18) is recommended for detection of Clusterin- α of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). Clusterin- α (C-18) is also recommended for detection of Clusterin- α in additional species, including equine and canine.

Suitable for use as control antibody for Clusterin siRNA (h): sc-43688, Clusterin siRNA (m): sc-43689, Clusterin shRNA Plasmid (h): sc-43688-SH, Clusterin shRNA Plasmid (m): sc-43689-SH, Clusterin shRNA (h) Lentiviral Particles: sc-43688-V and Clusterin shRNA (m) Lentiviral Particles: sc-43689-V.

Molecular Weight of Clusterin precursor: 70 kDa.

Molecular Weight of Clusterin- α : 36-39 kDa.

Molecular Weight of Clusterin- β : 34-36 kDa.

Positive Controls: Clusterin (h2): 293T Lysate: sc-113920, HeLa whole cell lysate: sc-2200 or SK-BR-3 cell lysate: sc-2218.

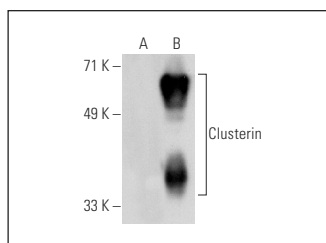
STORAGE

Store at 4°C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

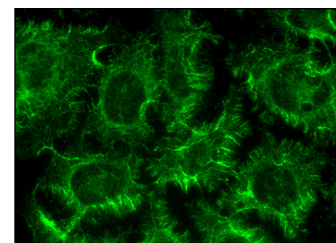
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



Clusterin- α (C-18): sc-6419. Western blot analysis of Clusterin expression in non-transfected: sc-117752 (A) and human Clusterin transfected: sc-113920 (B) 293T whole cell lysates.



Clusterin- α (C-18): sc-6419. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Couse, J.F., et al. 1999. Postnatal sex reversal of the ovaries in mice lacking estrogen receptors α and β . *Science* 286: 2328-2331.
- Trougakos, I.P., et al. 2009. Intracellular clusterin inhibits mitochondrial apoptosis by suppressing p53-activating stress signals and stabilizing the cytosolic Ku70-Bax protein complex. *Clin. Cancer Res.* 15: 48-59.
- Vandepoele, K., et al. 2010. Chibby interacts with NBPF1 and clusterin, two candidate tumor suppressors linked to neuroblastoma. *Exp. Cell Res.* 316: 1225-1233.
- Trougakos, I.P., et al. 2010. Genome-wide transcriptome profile of the human osteosarcoma Sa OS and U-2 OS cell lines. *Cancer Genet. Cytogenet.* 196: 109-118.
- Antonellou, M.H., et al. 2011. Apolipoprotein J/Clusterin is a novel structural component of human erythrocytes and a biomarker of cellular stress and senescence. *PLoS ONE* 6: e26032.
- Antonellou, M.H., et al. 2011. Apolipoprotein J/Clusterin in human erythrocytes is involved in the molecular process of defected material disposal during vesiculation. *PLoS ONE* 6: e26033.
- Kim, Y.S., et al. 2012. Clusterin interaction with Bcl-x_L is associated with seizure-induced neuronal death. *Epilepsy Res.* 99: 240-251.
- Prochnow, H., et al. 2013. Non-secreted clusterin isoforms are translated in rare amounts from distinct human mRNA variants and do not affect Bax-mediated apoptosis or the NF κ B signaling pathway. *PLoS ONE* 8: e75303.

MONOS
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Try **Clusterin- α (B-5): sc-5289** or **Clusterin- α (A-11): sc-166831**, our highly recommended monoclonal alternatives to Clusterin- α (C-18). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Clusterin- α (B-5): sc-5289**.