SANTA CRUZ BIOTECHNOLOGY, INC.

Clusterin-α (78E): sc-32264



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 polypeptide that is post-translationally 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.

REFERENCES

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- Chen, X., et al. 2003. Clusterin as a biomarker in murine and human intestinal neoplasia. Proc. Natl. Acad. Sci. USA 100: 9530-9535.
- 4. Leskov, K.S., et al. 2003. Synthesis and functional analyses of nuclear Clusterin, a cell death protein. J. Biol. Chem. 278: 11590-11600.
- 5. Gwon, J.S., et al. 2004. Expression of Clusterin in Muller cells of the rat retina after pressure-induced ischemia. Glia 47: 35-45.
- 6. Pucci, S., et al. 2004. Modulation of different Clusterin isoforms in human colon tumorigenesis. Oncogene 23: 2298-2304.
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- 8. Xie, D., et al. 2005. Up-regulated expression of cytoplasmic Clusterin in human ovarian carcinoma. Cancer 103: 277-283.
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CHROMOSOMAL LOCATION

Genetic locus: CLU (human) mapping to 8p21.1.

SOURCE

Clusterin- α (78E) is a mouse monoclonal antibody raised against native Clusterin- α purified from serum of human origin.

PRODUCT

Each vial contains 200 $\mu g~lgG_1$ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Clusterin- α (78E) is recommended for detection of Clusterin- α of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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

Molecular Weight of Clusterin precursor: 70 kDa.

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

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

Positive Controls: SK-BR-3 cell lysate: sc-2218, human tonsil tissue extract: sc-364263 or HeLa whole cell lysate: sc-2200.

DATA





Clusterin- α (78E): sc-32264. Western blot analysis of Clusterin- α expression in human tonsil tissue extract.

Clusterin-α (78E): sc-32264. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing membrane staining of squamous epithelial cells at low (**A**) and high (**B**) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

 Zhang, Y., et al. 2016. Cr(VI) induces premature senescence through Ros-mediated p53 pathway in L-02 hepatocytes. Sci. Rep. 6: 34578.

STORAGE

Store at 4° C, **D0 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.



See **Clusterin-** α (**B-5**): sc-5289 for Clusterin- α antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.