

# Clusterin (Hs-3): sc-51579

## 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,  $\alpha$  and  $\beta$ , are associated through disulfide bonds. The  $\beta$  subunit (also called ApoJ $\alpha$ ) corresponds to residues 23-227. The  $\alpha$  subunit (also called ApoJ $\beta$ ) corresponds to residues 228-449. Overexpression of Clusterin appears to be more common in late stages of mammary tumor progression. Clusterin markedly influences  $\beta$ -Amyloid structure and neuritic toxicity *in vivo* and may influence Alzheimer's disease pathogenesis.

## REFERENCES

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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.
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8. Xie, D., et al. 2005. Upregulated 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 (Hs-3) is a mouse monoclonal antibody raised against human sperm.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Clusterin (Hs-3) is recommended for detection of Clusterin of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Clusterin siRNA (h): sc-43688; and as shRNA Plasmid control antibody for Clusterin shRNA Plasmid (h): sc-43688-SH.

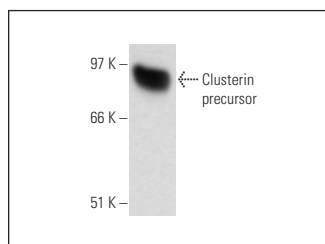
Molecular Weight of Clusterin precursor: 70 kDa.

Molecular Weight of Clusterin- $\alpha$ : 36-39 kDa.

Molecular Weight of Clusterin- $\beta$ : 34-36 kDa.

Positive Controls: SK-BR-3 whole cell lysate, human breast tumor or human brain tissue.

## DATA



Clusterin (Hs-3): sc-51579. Western blot analysis of Clusterin expression in HeLa whole cell lysate.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.