

Anti-Human Clusterin
(mouse monoclonal IgG₁, Clone 41D)

Catalog # 05-354

Lot # 14760

Background: Clusterin, which is also known as Sulfated Glycoprotein-2 (SGP-2), Dimeric Acidic Glycoprotein (DAG), and Testosterone Repressed Prostate Message-2 (TRPM-2), is a disulfide-linked heterodimeric sulfated glycoprotein expressed in a variety of tissues¹⁻³. Although its function is unknown, clusterin binds to cells, membranes, and hydrophobic proteins¹⁻³. It also inhibits complement activation. Induced or elevated levels of clusterin have been associated with programmed cell death caused by hormonal stimuli or traumatic insult^{2,3}.

Immunogen: Native clusterin purified from human serum⁴.

Species Cross Reactivity: Not observed.

Quantity and Formulation: **100mg** concentrated mouse IgG in 200µl PBS, pH 7.4, with 10mg/ml of BSA and 0.05% sodium azide.

Physical Form: Frozen liquid.

Storage and Shelf Life: 2 years at -20°C.

References:

1. Collard, M.W., and Griswold, M.D., Biochemistry **26**: 3297-3303, 1987.
2. Bandyk, M.G., *et. al.*, J. Urol. **143**: 407-413, 1990.
3. Wong, P., *et. al.*, J. Biol. Chem. **268**: 5021-5031 1993.
4. Wilson, M.R., *et. al.*, Biochem. Biophys. Acta **1159**: 319-326, 1992.
5. Narvaez, C.J., *et. al.*, Endocrinology **137**: 400-409, 1996.

FOR RESEARCH USE ONLY.
NOT FOR USE IN HUMANS.

Quality Control Testing and Research Applications

Western Immunoblot Analysis^{4,5}: This lot of antibody at 1.0µg/ml detected human clusterin subunit (35kDa) in human serum and MCF-7 cell lysates.

Immunohistochemistry: This lot of antibody at 5µg/ml detected clusterin in paraffin embedded human brain sections.

Western Immunoblot Protocol

1. Perform SDS-polyacrylamide gel electrophoresis (SDS-PAGE) on a 1:10 dilution of human serum and transfer the proteins to nitrocellulose. Wash the blotted nitrocellulose twice with water.
2. Block the blotted nitrocellulose in freshly prepared PBS containing 3% nonfat dry milk (PBS-MLK) for minutes at 20-25°C with constant agitation.
3. Incubate the nitrocellulose with **1.0mg/ml of a-Human Clusterin**, diluted in freshly prepared PBS-MLK overnight with agitation at 4°C.
4. Wash the nitrocellulose twice with water.
5. Incubate the nitrocellulose in the secondary reagent of choice (a goat anti-mouse IgG conjugated to alkaline phosphatase, 1:1000 dilution, was used) in PBS-MLK for 1.5 hours at room temperature with agitation.
6. Wash the nitrocellulose with water twice.
7. Wash the nitrocellulose in PBS-0.05% Tween 20 for 3-5 minutes.
8. Rinse the nitrocellulose in 4-5 changes of water.
9. Use detection method of choice (colorimetric detection was used).

Immunohistochemistry Protocol

1. Fix frozen brain sections with 4% paraformaldehyde/2% acetic acid in PBS for one minute at room temperature.
2. Wash the sections twice with PBS for 15 minutes, with very gentle agitation.
3. Cover the sections with 8% albumin in PBS and incubate for 30 minutes at room temperature.
4. Wash the sections with PBS, for 15 minutes, with very gentle agitation.
5. Incubate the sections overnight at 4°C with **5mg/ml of a-Human Clusterin** in PBS containing 1% albumin. Leave one section in 1% albumin in PBS as the negative control.
6. Wash the sections twice with PBS, for 30 minutes per wash.
7. Incubate the sections with a secondary reagent of choice (a goat α-mouse IgG conjugated to fluorescein at a 1:100 dilution in PBS was used) for 30 minutes, in the dark.
8. Wash the sections three times with PBS, for 30 minutes per wash, in the dark.
9. Mount slides with gel mount, place cover slip, and allow gel to dry in the dark.
10. Examine sections with a fluorescent microscope and record photographically