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4-Hydroxynonenal Rabbit mAb

Catalog No.: A26085 Recombinant 9 Publications

Basic Information

Observed MW
42-350kDa

Calculated MW

Category
Primary antibody

Applications
WB,IF/ICC,IF-P,FC (intra)

Cross-Reactivity
Species independent

CloneNo number
ARC70314

Background

4-hydroxy-2-nonenal (4-hydroxynonenal, 4-HNE) is a highly reactive aldehyde generated by the exposure of polyunsaturated fatty acids to peroxides and reactive oxygen species (ROS). It non-enzymatically forms stable protein adducts with histidine, lysine, and cysteine side chains that have been used as biomarkers for oxidative damage in cells. Conditions where 4-HNE immunoreactivity has been observed include include inflammation, neurodegenerative diseases, and ischemic damage to the heart and brain.

Recommended Dilutions

WB	1:1000 - 1:10000
IF/ICC	1:200 - 1:500
IF-P	1:200 - 1:500
FC (intra)	1:100 - 1:500

Immunogen Information

Gene ID **Swiss Prot**

Immunogen
Chemical compounds corresponding to 4-Hydroxynonenal.

Synonyms
4-HNE

Contact

400-999-6126

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Product Information

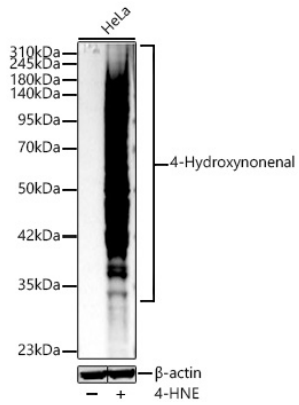
Source
Rabbit

Isotype
IgG

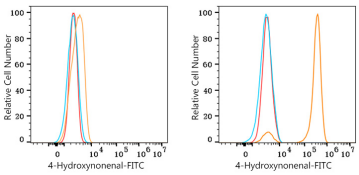
Purification
Affinity purification

Storage
Store at -20℃. Avoid freeze / thaw cycles.
Buffer: PBS containing 50% glycerol and 0.05% BSA, preserved with proclin300 or sodium azide (as specified on the Certificate of Analysis), pH 7.3.

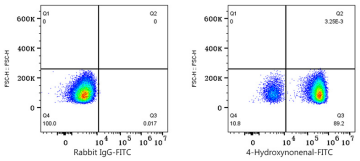
Validation Data



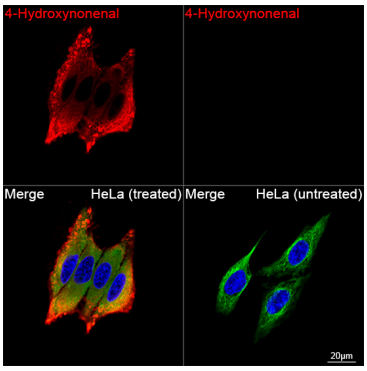
Western blot analysis of lysates from HeLa cells using 4-Hydroxynonenal Rabbit mAb (A26085) at 1:10000 dilution incubated overnight at 4℃. HeLa cells were treated with 4-HNE (0.2 mg/ml) at 37℃ for 30 minutes.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 30 µg per lane.
Blocking buffer: 3 % nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 30s.



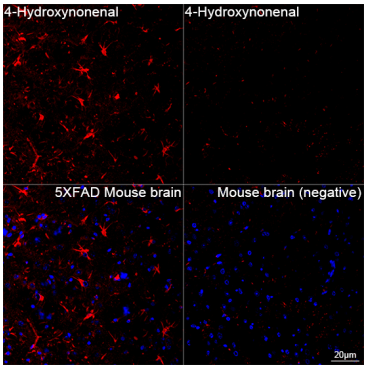
Flow cytometry: 1X10^6 HeLa cells (negative control,left) and HeLa cells (treated with 4-Hydroxynonenal,right) were intracellularly-stained with 4-Hydroxynonenal Rabbit mAb (A26085,2 µg/mL,orange line) or Rabbit IgG isotype control (AC042,2 µg/mL,blue line), followed by FITC conjugated goat anti-Rabbit pAb staining. Non-fluorescently stained cells were used as blank control (red line).



Flow cytometry: 1X10^6 HeLa cells (treated with 4-Hydroxynonenal) were intracellularly stained with Rabbit IgG isotype control (AC042,2 µg/mL,left) or 4-Hydroxynonenal Rabbit mAb (A26085,2 µg/mL,right), followed by FITC conjugated goat anti-Rabbit pAb staining.



Confocal imaging of HeLa cells (treated with 4-HNE) and HeLa cells (untreated) using 4-Hydroxynonenal Rabbit mAb (A26085, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with α-Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.



Confocal imaging of paraffin-embedded Mouse brain and 5xFAD Mouse brain tissue using 4-Hydroxynonenal Rabbit mAb (A26085, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). High pressure antigen retrieval performed

Validation Data

with 0.01M Citrate Buffer (pH 6.0) prior to IF staining. Objective: 40x.