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# KO-Validated Anti-ALDH1A3 Mouse Monoclonal Antibody

**Mouse monoclonal antibody**
**Catalog # AGI2442**

## Specification

### KO-Validated Anti-ALDH1A3 Mouse Monoclonal Antibody - Product Information

| | |
|---|---|
| Application | **WB** |
| Primary Accession | P47895 |
| Reactivity | **Human** |
| Clonality | **Monoclonal** |
| Isotype | **Mouse IgG1** |
| Calculated MW | **Predicted, 56 kDa; observed, 56 kDa KDa** |
| Gene Name | **ALDH1A3** |
| Aliases | **ALDH1A3; Aldehyde Dehydrogenase 1 Family Member A3; Retinaldehyde Dehydrogenase 3; RALDH3; ALDH6; Aldehyde Dehydrogenase 6; Aldehyde Dehydrogenase 1 Family, Member A3; Aldehyde Dehydrogenase Family 1 Member A3; Acetaldehyde Dehydrogenase 6; EC 1.2.1.36; EC 1.2.1; ALDH1A6; RALDH-3; RalDH3; MCOP8** |
| Immunogen | **Recombinant protein of human ALDH1A3** |

### KO-Validated Anti-ALDH1A3 Mouse Monoclonal Antibody - Additional Information

| | |
|---|---|
| Gene ID | **220** |

**Other Names**
Retinaldehyde dehydrogenase 3, RALDH-3, RalDH3, 1.2.1.36, Aldehyde dehydrogenase 6, Aldehyde dehydrogenase family 1 member A3, ALDH1A3, ALDH1A3, ALDH6 {ECO:0000303|PubMed:7698756}

### KO-Validated Anti-ALDH1A3 Mouse Monoclonal Antibody - Protein Information

**Name** ALDH1A3

**Synonyms** ALDH6 {ECO:0000303|PubMed:7698756}

**Function**
Catalyzes the NAD-dependent oxidation of aldehyde substrates, such as all-trans-retinal and all-trans-13,14-dihydroretinal, to their corresponding carboxylic acids, all-trans-retinoate and all-trans- 13,14-dihydroretinoate, respectively (By similarity) (PubMed:<a href="http://www.uniprot.org/citations/27759097" target="_blank">27759097</a>). High specificity for all-trans-retinal as substrate, can also accept acetaldehyde as substrate in vitro but with lower affinity (PubMed:<a href="http://www.uniprot.org/citations/27759097" target="_blank">27759097</a>). Required for the biosynthesis of normal levels of retinoate in the embryonic ocular and nasal regions; a critical lipid in the embryonic development of the eye and the nasal region (By similarity).

**Cellular Location**
Cytoplasm {ECO:0000250|UniProtKB:Q9JHW9}.

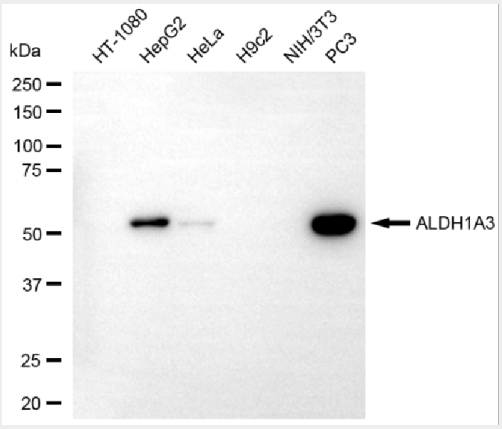
**Tissue Location**
Expressed at low levels in many tissues and at higher levels in salivary gland, stomach, and kidney

## KO-Validated Anti-ALDH1A3 Mouse Monoclonal Antibody - Protocols

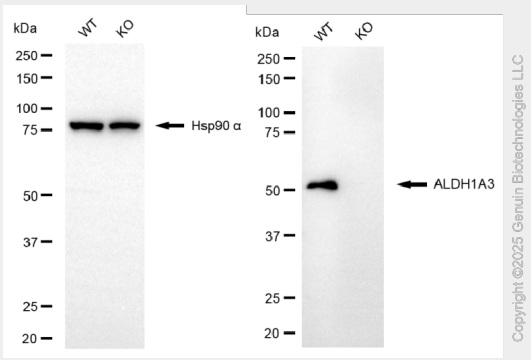
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## KO-Validated Anti-ALDH1A3 Mouse Monoclonal Antibody - Images




Western blotting analysis using anti-ALDH1A3 antibody (Cat#AGI2442). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-ALDH1A3 antibody (Cat#AGI2442, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody respectively.




Western blotting analysis using anti-ALDH1A3 antibody (Cat#AGI2442). ALDH1A3 expression in wild-type (WT) and ALDH1A3 knockout (KO) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-ALDH1A3 antibody (Cat#AGI2442,

1:1,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.