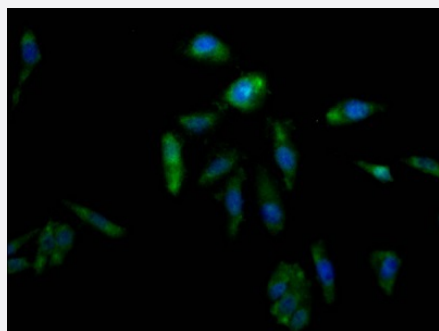


RecomAb™

# AKR1C3 recombinant monoclonal antibody, clone 4D12

Catalog # RAB07521      Size 100 uL

## Applications

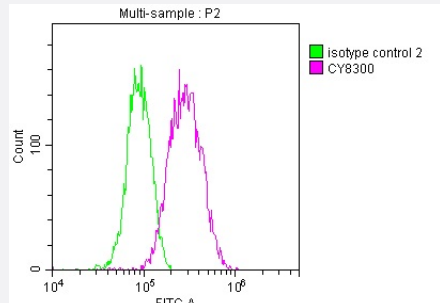


### Immunofluorescence

Immunofluorescent staining of HeLa Cells with AKR1C3 recombinant monoclonal antibody, clone 4D12 (Cat # RAB07521). The cells were fixed in 4% formaldehyde, permeated by 0.2% TritonX-100, and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

### Flow Cytometry

Flow cytometry analysis of A549 cells stained with AKR1C3 recombinant monoclonal antibody, clone 4D12 (Cat # RAB07521). The cells were fixed with 70% Ethylalcohol (18h) and then incubated in 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1ug/1\*10<sup>6</sup>cells) for 1 h at 4°C. The secondary antibody used was FITC-conjugated goat anti-rabbit IgG (H+L) at 1/200 dilution for 30min at 4°C. Control antibody (green line) was Rabbit IgG (1ug/1\*10<sup>6</sup>cells) used under the same conditions. Acquisition of >10,000 events was performed.



## Specification

|                     |  |
|---------------------|--|
| Product Description | Rabbit recombinant monoclonal antibody raised against human AKR1C3.                    |
| Antibody Species    | Rabbit   |
| Immunogen           | Original antibody is raised against a synthetic peptide corresponding to human AKR1C3. |
| Reactivity          | Human  |
| Form                | Liquid   |

|                     |  |
|---------------------|--|
| Purification        | Affinity chromatography purification   |
| Isotype             | IgG  |
| Recommend Usage     | ELISA<br>Flow Cytometry(1:20-1:200)<br>Immunofluorescence (1:20-1:200)<br>The optimal working dilution should be determined by the end user. |
| Storage Buffer      | In PBS, pH7.4 (150 mM NaCl, 0.02% sodium azide and 50% glycerol)   |
| Storage Instruction | Store at -20°C or -80°C.<br>Aliquot to avoid repeated freezing and thawing.  |
| Note                | This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.                       |

## Applications

- Immunofluorescence

Immunofluorescent staining of Hela Cells with AKR1C3 recombinant monoclonal antibody, clone 4D12 (Cat # RAB07521). The cells were fixed in 4% formaldehyde, permeated by 0.2% TritonX-100, and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

- Enzyme-linked Immunoabsorbent Assay

- Flow Cytometry

Flow cytometry analysis of A549 cells stained with AKR1C3 recombinant monoclonal antibody, clone 4D12 (Cat # RAB07521). The cells were fixed with 70% Ethylalcohol (18h) and then incubated in 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1ug/1\*10<sup>6</sup>cells) for 1 h at 4°C. The secondary antibody used was FITC-conjugated goat anti-rabbit IgG (H+L) at 1/200 dilution for 30min at 4°C. Control antibody (green line) was Rabbit IgG (1ug/1\*10<sup>6</sup>cells) used under the same conditions. Acquisition of >10,000 events was performed.

## Gene Info — AKR1C3

|                    |   |
|--------------------|---|
| Entrez GeneID      | <a href="#">8644</a>  |
| Protein Accession# | <a href="#">P42330</a>  |
| Gene Name          | AKR1C3  |
| Gene Alias         | DD3, DDX, HA1753, HAKRB, HAKRe, HSD17B5, KIAA0119, hluPGFS                              |
| Gene Description   | aldo-keto reductase family 1, member C3 (3-alpha hydroxysteroid dehydrogenase, type II) |

Omim ID [603966](#)

Gene Ontology [Hyperlink](#)

**Gene Summary**

This gene encodes a member of the aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. These enzymes catalyze the conversion of aldehydes and ketones to their corresponding alcohols by utilizing NADH and/or NADPH as cofactors. The enzymes display overlapping but distinct substrate specificity. This enzyme catalyzes the reduction of prostaglandin (PG) D2, PGH2 and phenanthrenequinone (PQ), and the oxidation of 9alpha,11beta-PGF2 to PGD2. It may play an important role in the pathogenesis of allergic diseases such as asthma, and may also have a role in controlling cell growth and/or differentiation. This gene shares high sequence identity with three other gene members and is clustered with those three genes at chromosome 10p15-p14. [provided by RefSeq]

**Other Designations**

OTTHUMP00000018996|aldo-keto reductase family 1, member C3|chlordecone reductase|dihydrodiol dehydrogenase 3|dihydrodiol dehydrogenase X|hydroxysteroid (17-beta) dehydrogenase 5|prostaglandin F synthase|trans-1,2-dihydrobenzene-1,2-diol dehydrogenase|type

## Pathway

- [Arachidonic acid metabolism](#)
- [Metabolism of xenobiotics by cytochrome P450](#)

## Disease

- [Adenocarcinoma](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Ductus Arteriosus](#)
- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Hyperandrogenism](#)
- [Infant](#)
- [Leukemia](#)
- [Lung Neoplasms](#)
- [Lymphoma](#)

- [Neoplasms](#)
- [Obesity](#)
- [Ovarian cancer](#)
- [Ovarian Failure](#)
- [Ovarian Neoplasms](#)
- [Polycystic Ovary Syndrome](#)
- [Prostate cancer](#)
- [Prostatic Hyperplasia](#)
- [Prostatic Neoplasms](#)
- [Puberty](#)
- [Pulmonary Disease](#)
- [Thrombophilia](#)
- [Tobacco Use Disorder](#)
- [Urinary Bladder Neoplasms](#)
- [Werner syndrome](#)