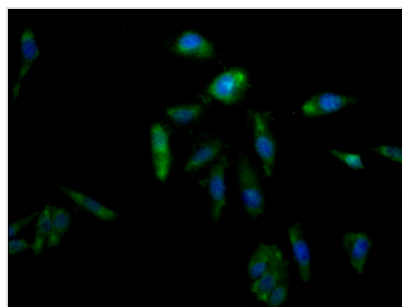




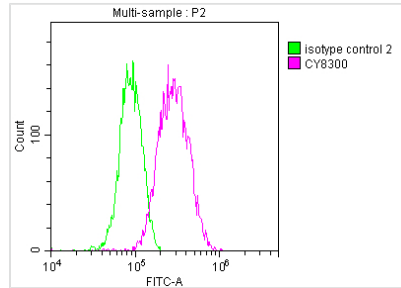
AKR1C3 Recombinant Monoclonal Antibody

Product Code	CSB-RA825204A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P42330
Immunogen	A synthesized peptide derived from human AKR1C3
Species Reactivity	Human
Tested Applications	ELISA, IF, FC; Recommended dilution: IF:1:20-1:200, FC:1:20-1:200
Relevance	Catalyzes the conversion of aldehydes and ketones to alcohols. Catalyzes the reduction of prostaglandin (PG) D2, PGH2 and phenanthrenequinone (PQ) and the oxidation of 9-alpha,11-beta-PGF2 to PGD2. Functions as a bi-directional 3-alpha-, 17-beta- and 20-alpha HSD. Can interconvert active androgens, estrogens and progestins with their cognate inactive metabolites. Preferentially transforms androstenedione (4-dione) to testosterone.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Neuroscience; Cancer; Metabolism; Signal transduction
Gene Names	AKR1C3
Clone No.	4D12

Image



Immunofluorescence staining of HeLa Cells with CSB-RA825204A0HU at 1:50, counter-stained with DAPI. 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).



Overlay histogram showing A549 cells stained with CSB-RA825204A0HU (red line) at 1:50. 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 ($1\mu\text{g}/1 \times 10^6$ cells) for 1 h at 4?. The secondary antibody used was FITC-conjugated goat anti-rabbit IgG (H+L) at 1/200 dilution for 30min at 4?. Control antibody (green line) was Rabbit IgG ($1\mu\text{g}/1 \times 10^6$ cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

AKR1C3, or PGF synthase, catalyzes the conversion of prostaglandins H2 and D2 into PGF2 and 9,11-PGF2, respectively. AKR1C3 is known to play a role in estrogen, androgen, progesterone, and prostaglandin metabolism and biosynthesis. Overexpression of the AKR1C3 gene has been found to be a promising biomarker for prostate cancer (PCa) progression. AKR1C3 stimulates the production of androgens and the activation of androgen receptors in PCa as a key androgen synthase. Patients with breast cancer (BRC) who overexpress AKR1C3 have a worse prognosis.

To produce the recombinant AKR1C3 antibody genes were cloned from B cells that were isolated from immunized animals with the A synthesized peptide derived from human AKR1C3 and then were inserted into plasma vectors. Mammalian cells like CHO and HEK 293 cells were transfected with these recombinant vectors allowing for antibody expression. The cell culture supernatant underwent purification via Affinity-chromatography to obtain the recombinant AKR1C3 antibody. This recombinant AKR1C3 antibody can react with the AKR1C3 protein from Human and is recommended for the use in the ELISA, IF, FC.